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# ECONOMICS OF DEFENSE POLICY:
# ADM. H. G. RICKOVER

## HEARING

BEFORE THE

## JOINT ECONOMIC COMMITTEE
## CONGRESS OF THE UNITED STATES

NINETY-SEVENTH CONGRESS

SECOND SESSION

### PART 1

JANUARY 28, 1982

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# ECONOMICS OF DEFENSE POLICY: ADM. H. G. RICKOVER

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THURSDAY, JANUARY 28, 1982

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
*Washington, D.C.*

The committee met, pursuant to notice, at 9:30 a.m., in room 318, Russell Senate Office Building, Hon. William Proxmire (member of the committee) presiding.

Present: Representatives Reuss and Richmond, and Senator Proxmire.

Also present: James K. Galbraith, executive director; Richard F. Kaufman, assistant director-general counsel; and Chris Frenze, professional staff member.

## OPENING STATEMENT OF SENATOR PROXMIRE, PRESIDING

Senator **PROXMIRE**. The committee will come to order.

Admiral Rickover, the quote most widely attributed to you is, "Why not the best?" You have been the best and as far as I can tell you still are the best.

Frankly, I believe the Government is making a terrible mistake in letting you go, although why you would want to continue working and carrying the terrific responsibilities of your office is something many people cannot understand.

In Japan persons who have demonstrated their worth by a lifetime of productive service are declared officially "National Treasures." By doing so, the government assures itself and the Nation that such individuals can continue contributing their skills and talents.

As you know, for a number of years, I have been giving "Golden Fleece" awards to those who have wasted taxpayers' funds.

Today I want to declare you a National Treasure for the following reasons:

One, you are the individual most responsible for demonstrating the value of nuclear propulsion for naval ships;

Two, the nuclear reactor program you have managed is probably the most important factor in our national security;

Three, you have proven that nuclear reactor technology can be safe, a lesson the civilian nuclear industry has still not learned;

Four, you have devoted the same kind of energy and thought to the elimination of government waste as you have to nuclear propulsion;

Five, you have been a tireless protector of the taxpayer and the public interest against private corporations and the bureaucracy. That one I want to repeat because it's especially important to me. You have been a tireless protector of the taxpayer and the public interest against private corporations and the bureaucracy;

Six, you have treated the institution of Congress with respect, helped many of us perform our important congressional oversight function, and by doing so, shown the value of our system of checks and balances; and

Seven, you have proven that it is possible for a government official to be scrupulously honest and to tell the truth.

Despite what they say about soldiers, it seems that old sailors don't have to fade away. Your prepared statement is vintage Rickover. Like you, it is tough, honest and enduring.

I look forward to your presentation and I know you will be just as candid and hardhitting in your responses to my questions as you have always been.

We are honored to have Senator Jackson drop in. I'm going to call on the chairman of the committee, Congressman Reuss, in just a minute, but Senator Jackson may have other appointments and we are delighted to have Senator Jackson. As we all know, Senator Jackson in the years I have been in the Senate has been the outstanding expert on defense as well as on other things, but particularly on defense. I don't think anybody has worked harder in the Congress to strengthen our defenses and better them than Senator Jackson. Senator Jackson, please proceed.

## Opening Statement of Hon. Henry M. Jackson, a U.S. Senator From the State of Washington

Senator Jackson. Thank you.

Senator Proxmire, Chairman Reuss, and Congressman Richmond, members of the committee, I'm very pleased to be here at your invitation this morning to say a word about Admiral Rickover. This is probably his last appearance before a committee as an active duty admiral of the U.S. Navy.

When I came to the Senate 29 years ago, Mr. Chairman, I spent a week in this building in connection with the move then being made to let Admiral Rickover go. He had been passed over twice as a captain and with the help of our colleagues, by the end of that week, he became a rear admiral on the merits.

The man who had been selected in his place had written a memo saying that nuclear power for the Navy was 25 years away and, you know, "Wouldst my enemy only write a book?" I mention this because I first met Admiral Rickover as a member of the Joint Committee on Atomic Energy in the House in 1949 and he was advocating a program that was distant from most of us, but I learned early on that this man had something which is the most invaluable characteristic of any human being—integrity—and he coupled that with great determination and he said, "It's going to work; we're going to do it step by step by step," and it has worked.

I would point out, as the chairman alluded to indirectly, that the Navy today has operational about 161 naval reactors without an incident occurring that would cause any problem for the Navy or for those aboard or for the public. That is a phenomenal record. That's far more reactors, as the chairman knows, than in the private sector. Every one of them have functioned with great precision and to the enduring benefit of the Navy. It's the most revolutionary thing that's ever happened to the U.S. Navy.

But what I want to drive home is the fact that people do count. Had it not been for Admiral Rickover, we would not have had the early edge that gave us a nuclear Navy, and he gave us a program that was meticulously managed. Every naval officer with a nuclear capability had to run the test of Admiral Rickover's interview. I don't know how many thousands—8,000 commissioned officers who have had the personal concern of Admiral Rickover.

If the civilian side of the nuclear reactor program had the kind of management skill, the integrity, and the commitment, Mr. Chairman, of Admiral Rickover, we would have never had an incident that has occurred from time to time in the operation of our civilian nuclear power program.

And above all else, Admiral Rickover has always been forthright and truthful in his presentations to the committee. We don't always have to agree with him, but he's a breath of fresh air on Capitol Hill on both sides of the Capitol, and I just want to say that his leaving is the Nation's loss.

I know he will be available to continue to help because this man is committed to his country as he has been during his long service in the Navy, which is the longest active duty time of any man, to my knowledge, in American history.

So I'm very pleased to be here as he testifies before the Joint Economic Committee.

Senator **Proxmire**. Thank you very much, Senator Jackson, for a most moving statement.

Chairman Reuss, would you care to make an opening statement?

## OPENING STATEMENT OF REPRESENTATIVE REUSS, CHAIRMAN

Representative **Reuss**. Thank you, Senator. It was good to hear Scoop Jackson, who's been around here a good many years himself, recall some history. And I suppose this is history day, because later on we're going to celebrate FDR's 100th birthday.

There were giants in those days, and it's good that we have one of them with us today, looking as young and handsome as ever. Our defense experts, Senator Proxmire and Senator Jackson, have——

Admiral **Rickover**. I admit to the young, but not to the handsome.

Representative **Reuss**. Senators Proxmire and Jackson have talked about Admiral Rickover's contribution to our national defense. I'm no defense expert, but I appreciate what he's done there. For me, I suppose his greatest contribution has been in his enriching and invigorating our language. I recall a few months ago finding myself on the trolley between the Capitol and the office building with you, Admiral, and I muttered something about, "Let us sit upon the ground and tell sad stories of the death of kings," and you were still going on with Richard when the trolley reached its destination. I don't know if you know all of Shakespeare, but based on that trolley ride——

Admiral **Rickover**. I have tried but I haven't succeeded yet.

Representative **Reuss**. I feel sad, too, about your leaving your Admiral's barge, but this committee, you know, is sort of a Privy Council, as close as we come to having one in this country. And you know that you're always not only welcome but wanted here on any of the wide pantheon of subjects which are always in your mind.

So while you're technically retiring, I won't really accept that word. We love you, Admiral, and we are honored that you are with us today.

Admiral RICKOVER. Thank you, sir.

Senator PROXMIRE. Congressman Richmond, may we have your opening statement, please.

### OPENING STATEMENT OF REPRESENTATIVE RICHMOND

Representative RICHMOND. Thank you, Senator.

Admiral, to me, you're one of the great legends of our time and I'm just very happy and grateful to be able to hear you this morning and get your ideas on our defense budget and defense expenditures and listen to you and get some advice about what this great country should be doing in the area of defense, and I'm certainly looking forward to your testimony.

Admiral RICKOVER. Thank you, sir.

Senator PROXMIRE. Admiral, go ahead, sir.

## STATEMENT OF ADM. H. G. RICKOVER, DIRECTOR, NAVAL NUCLEAR PROPULSION PROGRAM, U.S. NAVY

Admiral RICKOVER. First, I would like to thank you very much for inviting me to testify. I look back with fond memories on my dealings with Chairman Reuss over the years, particularly on your work with the House Banking Committee, sir. You were very helpful in connection with the problems we had under the Defense Production Act. You were always a firm supporter of legislation that would help expose excesses of business. Although most of your efforts were focused on the banking industry, as the chairman of the House Banking Committee, you always seemed to have time to help with problems like providing for the recovery of excessive profits on defense contracts, strengthening the Renegotiation Board, and supporting activities of the Cost Accounting Standards Board.

It has been an honor to know you, sir, and I thank you for all your help. The major lesson I have learned when you are taking on big business, where money is involved, is that it is practically impossible to make a dent. I think the time will come when the United States is not as prosperous as it is today and when citizens will be forced to think through what is going on. Then your words will be heeded. But today life is too easy. It is also easy to run up the public debt. Nobody realizes what is going on. Actually, the increase in the public debt does not hurt poor or moderate income people as much as it is ultimately going to hurt the rich people. Because the interest rates are going up it has to be the rich people who will pay in the end. So if they were as wise, as much as they are rich, they would support you in what you're trying to do.

Now I will start, if I may, with my formal statement.

Senator PROXMIRE. Go right ahead, sir.

Admiral RICKOVER. Over the years the Joint Economic Committee has done an outstanding job educating the Congress, the executive branch, and the public regarding the important economic issues confronting the Nation.

## EFFICIENCY AND ECONOMY IN GOVERNMENT

One of these issues is how to promote greater efficiency and economy in the Defense Department. As you know, I have testified often before congressional committees, including yours, on various aspects of this problem. In some cases, Congress implemented my recommendations for reforms. Eventually, however, defense contractor lobbyists have generally learned how to get around them or have them rescinded.

Former Congressman Chet Holifield, working with the House Armed Services Committee, was instrumental in enacting the Truth-In-Negotiations Act of 1962. I helped him a great deal with that effort. Today, however, there are still contractors who are not in compliance with the act.

## TITLE TO INVENTIONS DEVELOPED AT GOVERNMENT EXPENSE

In the late 1950's, Senator Russell Long insisted that the statute authorizing the National Aeronautics and Space Administration, which at that time was at the forefront of advancing American technology, preserve for the American taxpayer title to inventions developed by government contractors at the public's expense. This was consistent with the general government policy as embodied in various statutes including the Atomic Energy Act. I remember I had many sessions with Senator Long and he was quite helpful. In this respect, I don't think there's been another Senator who has tried to do more for the United States than Senator Long.

In 1980, Congress reversed this longstanding government policy by giving universities and small businesses title to inventions developed at government expense. I testified against that because I recognized what would happen and it has happened. Now patent lobbyists are pressing Congress to extend that giveaway practice to large contractors. This would generate more business for patent lawyers but, in the process, will promote even greater concentration of economic power in the hands of the large corporations which already get the lion's share of the Government's research and development budget.

## COST ACCOUNTING STANDARDS

In the late 1960's, Senator William Proxmire, Congressman Henry Gonzalez, and former Congressman Wright Patman were instrumental in enacting legislation requiring the establishment of cost accounting standards for defense contracts and a Cost Accounting Standards Board to set these standards. In 1980, Congress eliminated the Cost Accounting Standards Board by cutting off its funding. And today, defense contractor lobbyists are promoting legislation that would give the Office of Management and Budget authority to waive or amend the standards. I predict that within a few years the standards established by the Cost Accounting Standards Board will have been watered down to the point that they will be worthless.

## RENEGOTIATION BOARD AND EXCESS PROFITS

In the late 1960's and early 1970's Senator William Proxmire, Congressman Jack Brooks, and Congressman Joe Minish were at the verge of getting congressional approval of legislation which would strengthen the Renegotiation Board and make it an effective means of recouping for the U.S. taxpayer any excessive profits made on defense contracts. By 1976 defense contractor lobbyists had persuaded Congress to let the Renegotiation Act expire. Three years later, in 1979, Congress cut off funding for the Renegotiation Board which promptly went out of business.

This left only the profit-limiting provisions of the Vinson-Trammell Act as legal authority for recovering excessive profits under defense contracts. In the fiscal year 1982 Defense Authorization Act, Congress rescinded the profit-limiting provisions of the Vinson-Trammell Act, leaving nothing in its place to protect the public except a few weak and wholly inadequate provisions which apply only during war or national emergency. Today the defense contractors have carte blanche. They can do anything they wish. All the safeguards so painfully and meticulously passed through Congress were all thrown away. Perhaps it is not possible to make significant improvements in defense procurement. It is an arcane subject in which defense contractors, who have a strong financial interest in such matters, tend to be most influential.

I have attached, as an appendix to my prepared statement, a list of recommendations for improving efficiency and economy in the Defense Department. Not all of my recommendations are procurement related. The organizational structure of the Defense Department itself promotes inefficiency as do many of the policies and practices of the military. My recommendations for improvements in these areas are also provided for your information.

I gave these recommendations to the Director of the Office of Management and Budget last spring when I met with him. I have seen no evidence of action within the executive branch to implement any of these recommendations. Once again, it will have to be Congress that takes the initiative.

## "SAY-DO"

I have invented an expression of "Say-Do." All you have to do is say that you will do something and you get lots of applause. You hear that all the time from the executive branch. You do nothing, yet you get the credit. It is a very interesting phenomenon that nobody ever follows up to see if the action has been taken. I see this petty trick going on all the time. People say something. The newspapers laud them before they have done a single thing. Then they never do it and go on to some other "Say-Do" thing and get more credit. Pretty soon they become important public figures who are always saving taxpayers' money; yet they have never produced any product or effected any saving. I am like Diogenes. I have been looking vainly for those who actually do what they say.

## INFLUENCE OF LARGE CORPORATIONS

I also recommend that the Joint Economic Committee assign high priority to addressing the problems growing out of the increasing power and influence of large corporations in our society. If our free enterprise, capitalistic system is to survive, it is incumbent upon corporate executives to exercise greater self-restraint and to accept moral responsibility for their actions, many of which appear to be having a negative influence on our economy and our society.

A preoccupation with the so-called bottom line of profit and loss statements, coupled with a lust for expansion, is creating an environment in which fewer businessmen honor traditional values; where responsibility is increasingly disassociated from the exercise of power; where skill in financial manipulation is valued more than actual knowledge and experience in the business; where attention and effort is directed mostly to short-term considerations, regardless of long-range consequences.

Political and economic power is increasingly being concentrated among a few large corporations and their officers—power they can apply against society, government, and individuals. Through their control of vast resources, these large corporations have become, in effect, another branch of government. They often exercise the power of government, but without the checks and balances inherent in our democratic system.

With their ability to dispense money, officials of large corporations may often exercise greater power to influence society than elected or appointed Government officials—but without assuming any of the responsibilities and without being subject to public scrutiny.

Woodrow Wilson warned that economic concentration could, "Give to a few men a control over the economic life of the country which they might abuse to the undoing of millions of men". His stated purposes was: "To square every process of our national life again with the standards we so proudly set up at the beginning and have always carried in our hearts." His comments are apropos today.

Many large corporations, because of their economic power and influence, have ready access to high level Government officials who, although not always familiar with the subleties of the issues presented to them all too often act without consulting their subordinates. This undermines the subordinates and does not always protect the interests of the taxpayer. Some large defense contractors know this and exploit it.

In the business world itself, many corporate executives, aided by shrewd, high-priced lawyers, seek to evade moral and legal responsibility for the companies they own and control by insulating themselves from the details, and they can always say they did not know what was going on—in many cases they probably don't.

Executives at corporate headquarters often can control their subsidiaries and draw out profits without assuming responsibility for contract obligations. This is the so-called corporate veil through which profits and cash can flow upwards to corporate headquarters, but which cuts off financial or legal responsibility.

## NEED TO IMPOSE CORPORATE RESPONSIBILITY

Where responsibility is increasingly divorced from authority, traditional business values tend to be lost. Contracts often become meanless. It used to be that a businessman's honor depended on his living up to his contract—a deal was a deal. Now, honoring contracts is becoming more a matter of convenience. Corporations are increasingly turning to high-priced law firms which, by legal maneuvering, obfuscation, and delay, can effectively void almost any contract—probably even the Ten Commandments. Probably, even Moses was not shrewd enough to deal with present-day claims lawyers. Under these circumstances, Government contracts with some large companies are binding only to the extent the company wishes to be bound.

Ever since the famous *Santa Clara County* v. *Southern Pacific Railroad* case in 1886, the Supreme Court has accorded corporations—which are considered as "persons" in law—the rights of individuals under the 14th amendment.

I submit that if a corporation is to be accorded protection as a natural person under the 14th amendment, then all the obligations incumbent on "natural persons" ought also to be binding on corporations. And, since a corporation acts through its officials, they should be held personally liable for illegal corporate acts.

Mr. Chairman, if you start along that line and you get one of those characters, take him on and throw him into jail, this would have an exemplary effect. A number of years ago some General Electric officials were thrown into jail for a week. That had a tremendous effect not only on the General Electric Co. but on other large corporations. But that lesson must be learned again every few years. So I suggest that you actually consider taking one of those characters and throwing him in jail, where he belongs.

Woodrow Wilson explained the problem this way:

> I regard the corporation as indispensable to modern business enterprise. I am not jealous of its size or might, if you will but abandon at the right points the fatuous, antiquated, and quite unnecessary fiction which treats it as a legal person; if you will but cease to deal with it by means of your law as if it were a single individual not only, but also—what every child may perceive it is not—a responsible individual.

If we are ever to get corporations to act as a "responsible individual," to use Wilson's phrase, we will need to attach full responsibility to the human beings who speak and act for it.

Certainly the profit motive is and should be the driving force in the capitalist system—the free enterprise system is based on it. However, in today's large corporations, managerial performance too often is measured solely in financial terms. In their world of financial statements, statistical reports, stock certificates, tender offers, press releases, and so on, managers of large corporations often lose sight of the men, materials, machines, and customers of the companies they control. Preoccupied with reports and numbers rather than people and things, there is a tendency to oversimplify operating problems and their solutions. Further, by focusing too strongly on so-called bottom line results, corporate officials can generate pressures that cause subordinates to act in ways they would not consider proper in their personal affairs.

Under pressure to meet assigned corporate profit objectives, subordinates sometimes overstep the bounds of propriety—even the law. The corporate officials who generate these pressures, however, are hidden behind the remote corporate screen, and are rarely, if ever, held accountable for the results.

### SHIPBUILDING CLAIMS

In recent years, several major Navy shipbuilders, when faced with large projected cost overruns, resorted to making large claims against the Navy. These large claims were greatly inflated and based on how much extra money the contractor wanted rather than how much he actually was owed by the Government. By ignoring their own responsibility for poor contract performance, they generated claims which attributed all the problems to Government actions and demanded hundreds of millions of dollars in extra payments—enough to recover all their cost overruns and yield the desired profit—the profit originally desired.

I could tell you many stories about that. For example, the very large shipbuilder who claimed he was not making enough profit on Navy contracts. So I had my people search through financial reports and they found that he was making less on commercial contracts than he wanted on Government contracts. Apparently he felt we were too stupid to look at the records.

Senator **Proxmire**. What was the name of that shipbuilder?

Admiral **Rickover**. Newport News Shipbuilding and Dry Dock Co. Look, don't just pick on those poor people. This is endemic throughout the system. I would appreciate it if you not make an issue of that. I answered you because you asked me and I knew the answer.

Sometimes the claims were many times the desired objective so that the company could appear to be accommodating the Navy by settling for a fraction of the claimed amount.

It was also quite possible for those companies to get well-known lawyers—I believe all members here are members of the legal profession—you're a lawyer, aren't you, Senator?

Senator **Proxmire**. I am not a lawyer.

Admiral **Rickover**. You're not? How the hell did you ever get into Congress? [Laughter.]

Senator **Proxmire**. That's one of the reasons, Admiral.

Representative **Reuss**. We hate lawyers in Wisconsin. That's why Senator Proxmire is so successful.

Admiral **Rickover**. Are you a lawyer?

Representative **Richmond**. No, sir.

Admiral **Rickover**. You mean you have a committee of three and you have no lawyer?

Senator **Proxmire**. It's very rare. There's nothing better than to tell an audience of farmers, for example, that one of the qualifications I have is I'm not a lawyer.

Admiral **Rickover**. Are you a farmer?

Senator **Proxmire**. I am not a farmer. That's why I tell lawyers I'm not a farmer.

Admiral **Rickover**. I know farming is an essential profession. I do not think lawyers are. [Laughter.]

You know, there's a story that when Peter the Great first visited England he went to observe their customs. He attended a law court. When he came back to Russia he asked: "Who were those people who were arguing?" They said, "Those were lawyers." He asked: "How many are there in Russia?" They said: "Four." And he said: "Go and hang the four of them." Now that is a true story by the way.

I am not really blaming lawyers. I don't think lawyers are worse than many other people. [Laughter.]

## APPARENT FRAUD REFERRED TO JUSTICE DEPARTMENT

In evaluating these claims, I found numerous instances of apparent fraud. I documented these instances in great detail and, in accordance with Navy directives, sent these reports of fraud to my superiors, recommending that they be referred to the Justice Department for investigation. Other Navy officials made similar reports.

The Navy, after carefully reviewing these reports, formally referred them to the Justice Department. So here we have this august outfit who have in front of their building that blind girl—with the "Scales of Justice" that are supposed to be evenhanded. They have that statue and all the visitors who come to Washington, look at it, and say: "Isn't it wonderful we are served by such honorable people."

In the 1970's, the Navy referred the claims of four large shipbuilders to the Justice Department for investigation. The Justice Department, however, seems incapable of dealing with sophisticated procurement fraud—or perhaps undesirous of doing so. After nearly a decade of work, the status of the Justice Department's record in these cases is as follows:

Litton was indicted 4 years ago for fraud, but the Justice Department has taken no action to try the case.

The Justice Department conducted a lengthy investigation of Lockheed claims but did not issue an indictment. By now, the statute of limitations has expired.

After investigating General Dynamics, our biggest defense contractor, for 4 years, the Department of Justice recently announced they could find no evidence of criminal intent, although the claims were almost five times what the Navy actually owed.

The Newport News investigation was recently dealt a serious blow when the Justice Department split up the investigating team and assigned the leading investigators other work. This happened shortly after they had reported their findings in the Newport News case and had asked the Department for more help to track down other promising leads.

## RESPONSIBILITIES OF CONGRESS

Being responsible Government officials, what reaction do Members of Congress have? You are responsible for the laws. What reaction do you expect from Government officials when they see this? How do you expect any Government official to stick his neck out and try to do his job when he's faced with this bunch of superiors who make speeches asking their employees to be honest and save money. When some clerk figures out a way to save 10 cents a week on stamps they make a big deal out of it, have a ceremony, and present him with a medal. But when large contractors submit multimillion-dollar inflated claims, nothing is done. That is the way it goes. It's all a lot of nonsense.

So what I am saying is that until the people at the top of Government mean what they say when they utter their vacuous speeches about Federal employees doing a good job and saving money; it will never be done.

The only place I see where it is possible to get anything done is Congress—I know you're not the executive branch, but you do make the laws. You can do something. There are things that you can do that I believe you have not done. I would like to get an answer from you on that, Senator Proxmire.

Senator **Proxmire**. Well, you see, the last part of your observation is correct. We cannot act directly. We can only act through the laws, call attention to it, try to make our laws more effective. In your opening statement you pointed out that the provisions that we have been able to incorporate into law to provide a discipline and control of defense contractors have gone. We have lost them. They have been overridden. So we just have to try again.

Admiral **Rickover**. Do you think it's possible in this day to really get a law passed that would protect the public?

Senator **Proxmire**. Sure, it's possible, but it's very difficult—I think testimony like yours today will help—for a whole series of reasons. You know better than I do, Admiral. As you said so well in your prepared statement, these defense contractors and others lobby very hard. They contribute to campaigns for candidates for the House and Senate and the Presidency of the United States. They contribute very heavily. Members of Congress feel obligated to them. They are impressive people. When they come down here it's very hard to stand up them.

Admiral **Rickover**. Make it legally impossible for them to directly or indirectly contribute to campaign funds—that no defense contractor or subcontractor shall be allowed to contribute to campaigns.

Senator **Proxmire**. I don't think you could possibly sustain that if you passed a law. The Supreme Court would say that would infringe on——

Admiral **Rickover**. Or limit it to the State and local representatives.

Senator **Proxmire**. I don't think you can even do that. You have to treat them like everybody else. As you know, if a very wealthy person wants to run for office, the Supreme Court has said he could spend as much as he wants to be elected to the House or Senate.

Admiral **Rickover**. And that cannot be limited?

Senator **Proxmire**. Not so far, unless we can change the mind of the Supreme Court.

Admiral **Rickover**. You mean the Supreme Court has declared candidates for public office can do that?

Senator **Proxmire**. That's right.

Admiral **Rickover**. Maybe we need a new Supreme Court. [Laughter.] They are supposed to protect the people, too, you know. They are not above the law.

Senator **Proxmire**. Well, we could pass a constitutional amendment, but that would be—you know how difficult that is and how long it takes.

### "CREATIVE" ACCOUNTING

Admiral **Rickover**. I believe the grossly inflated claims to which the Navy was subjected during the past decade are an outgrowth of the philosophy that in some companies anything goes in meeting the profit objectives set by senior corporate officials.

While profit figures may be a convenient basis to assess management performance, they can be manipulated, particularly in the case of large corporations with their various businesses. Drucker, the management expert, once said "any accountant worth his salt can convert any profit figure into a loss or vice versa if given control of the accounting definitions all unquestionably 'within the limits of proper accounting practice.' "

As you know, I have testified previously to Congress about the misdemeanors of the accounting profession. They have another angle. You should hold accountants responsible, but you do not. Therefore, they are a group of people who aid and abet the corporations in doing things which are wrong, but they are not held accountable. Of course, the accounting profession should police itself, but that is like asking any group of people who perform misdemeanors to improve themselves. We have found in human society that you must have an outsider because few groups ever police themselves.

Senator **Proxmire**. In your prepared statement you say the Congress eliminated the Cost Accounting Standards Board.

Admiral **Rickover**. Yes. You did it yourselves.

Senator **Proxmire**. Congress did it. We got it enacted and then we were overruled.

Admiral **Rickover**. Yes, sir.

Through "creative" accounting, a large company can tailor its financial statements to convey to stockholders, and others, a picture quite different than that warranted by the company's actual performance. Some large corporations have been able to generate optimistic financial reports even when they were near bankruptcy.

By assuming, in their accounting, that they would be awarded large claim payments from the Government, some shipbuilders, year after year, have been able to report to the public increasing profits—even record profits—while at the same time reporting to senior defense officials hundreds of millions of dollars in potential losses. They simply assumed for financial reporting purposes that, through claims, the Navy would end up having to pay for all their cost overruns.

And there you are. Look at what the poor citizen is subjected to. Here is a reputable company, a large company, making financial statements which induces the citizen to buy stock. The executive branch knew what went into the financial statements and did nothing about it. This is what puzzles me. I find it intolerable that such a condition could exist. I believe Congress should insure that the executive branch upholds the law, and get some of these people indicted—you can do these things. You have the power in Congress which you never use. I believe the time has come when you really started acting as representatives of the people.

The reason I mention these problems is to question an increasingly popular notion; namely, that the so-called forces of the marketplace are enough to motivate large corporations to act responsibly and exercise self-restraint.

### COMPLAINTS ABOUT OVERREGULATION

Businessmen regularly complain that overregulation by Government inhibits their freedom and accomplishments, yet it is the very acts of some of them that have made government regulation necessary. Adolf Berle perceptively observed that when business threatens to engulf the state, it forces the state to engulf business. That should be a dire warning to business. I believe that ultimately there will be enough aroused citizens that there will again be a serious move against business.

The notion that we have a self-regulating, free market economy that will itself encourage a high standard of ethical business conduct is not realistic in today's complex society. Those who advocate exclusive reliance on the market do disservice to capitalism, since the result is often increased government intervention—the very antithesis of their expressed goal. On the other hand, the destruction of capitalism and the establishment of complete state control are inimical to economic and political freedom, and I deeply detest that just as much as I know all of you detest it and yet we are approaching that state.

The survival of our capitalist system therefore depends on finding a proper middle ground between these two extremes.

I believe that businessmen must treat Government regulation realistically, rather than with instinctive opposition. Much of Government regulation is essential to protect the public against the recurrence of past abuses, and because it is unrealistic to expect any group to truly police itself. You know, we tried that in 1932—having business regulate itself. By 1934 we found it did not work. I well remember those years and I think you may also. Businessmen must face the fact that regulation is inevitable. Blind opposition to all regulation detracts from the valid complaints business may have about the excesses of regulation.

Often the largest businesses—those least subject to the restraints of free enterprise—are the most outspoken advocates of the capitalist, free enterprise system as an effective safeguard against these excesses. They want the public to believe that they behave in accordance with the free enterprise system, when in fact they escape many restraints of that system. And they all have public relations people who know little about the business but do know how to do public relations. Consistently they lobby against new Government regulations. They herald the virtues of competition and the marketplace as if they were small businessmen subject to these forces. Yet at the same time they lobby for Government—that is, taxpayer assistance, in the form of tax loopholes, protected markets, subsidies, guaranteed loans, contract bailouts, and so on.

Businessmen should vigorously advocate respect for law because law is the foundation of our entire society including business. Few areas of society are as dependent on law as is business. The law protects such essential rights of business as integrity of contracts. When businessmen break the law, ignore or destroy its spirit, or use its absence to justify unethical conduct, they undermine business itself as well as their own welfare.

They should be concerned with the poor record of law enforcement as it relates to them. They should be concerned about the double standard where an ordinary citizen is punished more severely for a petty crime than corporate officials convicted of white collar crimes involving millions of dollars.

Theodore Roosevelt was this Nation's foremost proponent of rugged individualism and a strong advocate of business. But he witnessed the growing cynicism among ordinary citizens toward a government that permitted one law to govern powerful corporations and another for individual citizens. He recognized that corporate lawlessness was undermining the very foundation of democracy. It was in this sense that he engaged in his famous battles with the "malefactors of great wealth." That is a very famous expression. I am sure you, as a progressive Senator, remember it.

### CAPITALISM

Although I have been critical of some current trends in business, I am not hostile to business. Despite its present moral obtuseness, I believe in free enterprise and the capitalist system. No other system offers as much opportunity for individual freedom and accomplishment.

Capitalism, based as it is on freedom of choice, helps preserve all other freedoms. Despite its man-designed imperfections, it is still the best system yet devised by man to foster a high level of economic well-being together with individual freedom. Should our capitalist system be destroyed, its destruction will be accompanied by the loss of most of our other liberties as well. There are living examples of this, and I hope our people do not believe this could not ensue in the United States. God has declared us to be His perfect people and His prime object of consideration.

The Founding Fathers of this Nation valued freedom and culture more than wealth. They brought fundamental honesty to the business of Government, and dealt with their countrymen on frank and open terms. They lived by the ideals they propounded. The Declaration of Independence was no idle statement for them. In support of it they pledged, and some lost, their lives and fortunes. Through their beliefs and individual deeds our Revolutionary leaders stirred their fellow countrymen to struggle and sacrifice for independence. More important, they set a moral tone and example for their age and for ours. We should try as best we can to emulate them.

### DEBT OWED TO THE NATION

On a more personal basis, I owe more to this country than I can ever repay. I came here as an immigrant, traveling in steerage from the old country. I didn't know a word of English when I got here at the age of 6. I remember life on the steerage decks—do you want to hear how they treated immigrants at that time? They put a barrel of salt herring and loaves of bread in the hold. That was all we got. However, we youngsters got a little bit more. We used to go between decks, look up and the people in second class would occasionally throw us an orange. I remember getting an orange that way one time.

But look what somebody can do in this country. I would like to preserve that for other people, particularly for American citizens. However, the way I see things going I do not think that opportunity will recur. We are giving too much power and authority to people who do not know how to use it and they abuse it.

This country provided me a refuge, a home, and opportunities for my parents and for me at a time when these were not available abroad. Through the Naval Academy, my country gave me an education I could not otherwise afford. The Navy also offered valuable experience and a means to try in some way to repay these debts—and I was paid a salary in addition.

It has been a great privilege to work with Members of Congress for these many years. It is hard to imagine where we would be today in the naval nuclear propulsion program were it not for the leadership Congress has provided and for its support.

### VALUE OF CONGRESSIONAL OVERSIGHT

While there are always rough spots and mistakes on all sides, the value of congressional oversight of the executive branch has been borne out time and again. In providing for a strong Navy, for example, Congress has shown far more vision than the executive branch. It was Congress, not the Defense Department, that pushed for U.S.S. *Nautilus*. It was Congress that recognized the importance of nuclear power for major combatant ships. It was Congress that understood the need for higher speed submarines and initiated construction of our fast attack submarines—the *Los Angeles* class, even while efforts were being made in the Defense Department to build slower, less capable submarines, and even advocated sinking some we already had.

I have always been treated with respect and courtesy by the Members of Congress—far more than I deserved. I have had your support—more than anyone could or should expect.

When I testified before your committee I have always enjoyed great courtesy and have been asked searching and to-the-point questions.

For all the consideration you have shown me, for your efforts to achieve efficiency in Government, and particularly for your friendship, I thank you.

Senator PROXMIRE. Thank you, Admiral.

[The prepared statement of Admiral Rickover, together with an appendix, follows:]

## Prepared Statement of Adm. H. G. Rickover

OVER THE YEARS THE JOINT ECONOMIC COMMITTEE HAS DONE AN OUTSTANDING JOB EDUCATING THE CONGRESS, THE EXECUTIVE BRANCH, AND THE PUBLIC REGARDING THE IMPORTANT ECONOMIC ISSUES CONFRONTING THE NATION.

ONE OF THESE ISSUES IS HOW TO PROMOTE GREATER EFFICIENCY AND ECONOMY IN THE DEFENSE DEPARTMENT. AS YOU KNOW, I HAVE TESTIFIED OFTEN BEFORE CONGRESSIONAL COMMITTEES, INCLUDING YOURS, ON VARIOUS ASPECTS OF THIS PROBLEM. IN SOME CASES, CONGRESS IMPLEMENTED MY RECOMMENDATIONS FOR REFORMS. EVENTUALLY, HOWEVER, DEFENSE CONTRACTOR LOBBYISTS HAVE GENERALLY LEARNED HOW TO GET AROUND THEM OR HAVE THEM RESCINDED.

FORMER CONGRESSMAN CHET HOLIFIELD, WORKING WITH THE HOUSE ARMED SERVICES COMMITTEE, WAS INSTRUMENTAL IN ENACTING THE TRUTH-IN-NEGOTIATIONS ACT OF 1962. I ASSISTED HIM IN THAT

VENTURE. TODAY THERE ARE STILL CONTRACTORS THAT ARE NOT IN COMPLIANCE WITH THE ACT.

IN THE LATE 1950'S SENATOR RUSSELL LONG INSISTED THAT THE STATUTE AUTHORIZING THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WHICH AT THAT TIME WAS AT THE FOREFRONT OF ADVANCING AMERICAN TECHNOLOGY, PRESERVE FOR THE AMERICAN TAXPAYER TITLE TO INVENTIONS DEVELOPED BY GOVERNMENT CONTRACTORS AT THE PUBLIC'S EXPENSE. THIS WAS CONSISTENT WITH THE GENERAL GOVERNMENT POLICY AS EMBODIED IN VARIOUS STATUTES INCLUDING THE ATOMIC ENERGY ACT.

IN 1980, CONGRESS REVERSED THIS LONGSTANDING GOVERNMENT POLICY BY GIVING UNIVERSITIES AND SMALL BUSINESSES TITLE TO INVENTIONS DEVELOPED AT GOVERNMENT EXPENSE. NOW PATENT LOBBYISTS ARE PRESSING CONGRESS TO EXTEND THAT GIVE-AWAY PRACTICE TO LARGE CONTRACTORS. THIS WOULD GENERATE MORE BUSINESS FOR PATENT LAWYERS BUT, IN THE PROCESS WILL PROMOTE EVEN GREATER CONCENTRATION OF ECONOMIC POWER IN THE HANDS OF THE LARGE CORPORATIONS WHICH ALREADY GET THE LION'S SHARE OF THE GOVERNMENT'S RESEARCH AND DEVELOPMENT BUDGETS.

IN THE LATE 1960'S SENATOR WILLIAM PROXMIRE, CONGRESSMAN HENRY GONZALEZ, AND FORMER CONGRESSMAN WRIGHT PATMAN WERE INSTRUMENTAL IN ENACTING LEGISLATION REQUIRING THE ESTABLISHMENT OF COST ACCOUNTING STANDARDS FOR DEFENSE CONTRACTS AND A COST ACCOUNTING STANDARDS BOARD TO SET THESE STANDARDS. IN 1980 CONGRESS ELIMINATED THE COST ACCOUNTING STANDARDS BOARD BY CUTTING OFF ITS FUNDING. AND TODAY, DEFENSE CONTRACTOR LOBBYISTS ARE PROMOTING LEGISLATION THAT WOULD GIVE THE OFFICE OF MANAGEMENT and Budget authority to waive or amend the standards. I predict that within a few years the standards established by the Cost Accounting Standards Board will have been watered down to the point that they will be worthless.

In the late 1960's and early 1970's Senator William Proxmire, Congressman Jack Brooks and Congressman Joe Minish were at the verge of getting Congressional approval of legislation which would strengthen the Renegotiation Board and make it an effective means of recouping for the U.S. taxpayer any excessive profits made on defense contracts. By 1976 defense contractor lobbyists had persuaded Congress to let the Renegotiation Act expire. Three years later, in 1979, Congress cut off funding for the Renegotiation Board which promptly went out of business. This left only the profit limiting provisions of the Vinson-Trammell Act as legal authority for recovering excessive profits under defense contracts. In the fiscal year 1982 Defense Authorization Act Congress rescinded the profit limiting provisions of the Vinson-Trammell Act, leaving nothing in its place to protect the public except a few weak and wholly inadequate provisions which apply only during war or national emergency.

Perhaps it is not possible to make significant improvements in defense procurement. It is an arcane subject in which defense contractors, who have a strong financial interest in such matters, tend to be most influential.

I have attached as part of my prepared statement a list of recommendations for improving efficiency and economy in the

Defense Department. Not all of my recommendations are procurement related. The organizational structure of the Defense Department itself promotes inefficiency as do many of the policies and practices of the military. My recommendations for improvements in these areas are also provided for your information.

I gave these recommendations to the Director of the Office of Management and Budget last spring when I met with him. I have seen no evidence of action within the Executive Branch to implement any of these recommendations. Once again, it will have to be Congress that takes the initiatives.

I also recommend that the Joint Economic Committee assign a high priority to addressing the problems growing out of the increasing power and influence of large corporations in our society. If our free enterprise, capitalistic system is to survive, it is incumbent upon corporate executives to exercise greater self-restraint and to accept moral responsibility for their actions, many of which appear to be having a negative influence on our economy and our society.

A preoccupation with the so-called bottom line of profit and loss statements, coupled with a lust for expansion, is creating an environment in which fewer businessmen honor traditional values; where responsibility is increasingly disassociated from the exercise of power; where skill in financial manipulation is valued more than actual knowledge and experience in the business; where attention and effort is directed mostly

TO SHORT TERM CONSIDERATIONS, REGARDLESS OF LONGER RANGE CONSEQUENCES.

POLITICAL AND ECONOMIC POWER IS INCREASINGLY BEING CONCENTRATED AMONG A FEW LARGE CORPORATIONS AND THEIR OFFICERS – POWER THEY CAN APPLY AGAINST SOCIETY, GOVERNMENT, AND INDIVIDUALS. THROUGH THEIR CONTROL OF VAST RESOURCES THESE LARGE CORPORATIONS HAVE BECOME, IN EFFECT, ANOTHER BRANCH OF GOVERNMENT. THEY OFTEN EXERCISE THE POWER OF GOVERNMENT, BUT WITHOUT THE CHECKS AND BALANCES INHERENT IN OUR DEMOCRATIC SYSTEM.

WITH THEIR ABILITY TO DISPENSE MONEY, OFFICIALS OF LARGE CORPORATIONS MAY OFTEN EXERCISE GREATER POWER TO INFLUENCE SOCIETY THAN ELECTED OR APPOINTED GOVERNMENT OFFICIALS – BUT WITHOUT ASSUMING ANY OF THE RESPONSIBILITIES AND WITHOUT BEING SUBJECT TO PUBLIC SCRUTINY.

WOODROW WILSON WARNED THAT ECONOMIC CONCENTRATION COULD "GIVE TO A FEW MEN A CONTROL OVER THE ECONOMIC LIFE OF THE COUNTRY WHICH THEY MIGHT ABUSE TO THE UNDOING OF MILLIONS OF MEN." HIS STATED PURPOSE WAS: "TO SQUARE EVERY PROCESS OF OUR NATIONAL LIFE AGAIN WITH THE STANDARDS WE SO PROUDLY SET UP AT THE BEGINNING AND HAVE ALWAYS CARRIED IN OUR HEARTS." HIS COMMENTS ARE APROPOS TODAY.

MANY LARGE CORPORATIONS, BECAUSE OF THEIR ECONOMIC POWER AND INFLUENCE, HAVE READY ACCESS TO HIGH LEVEL GOVERNMENT OFFICIALS WHO, ALTHOUGH NOT ALWAYS FAMILIAR WITH THE SUBTLETIES OF THE ISSUES PRESENTED TO THEM ALL TOO OFTEN ACT WITHOUT CONSULTING THEIR SUBORDINATES. THIS UNDERMINES THE SUBORDINATES

AND DOES NOT ALWAYS PROTECT THE INTERESTS OF THE TAXPAYER. SOME LARGE DEFENSE CONTRACTORS KNOW THIS AND EXPLOIT IT.

IN THE BUSINESS WORLD ITSELF, MANY CORPORATE EXECUTIVES, AIDED BY SHREWD, HIGH-PRICED LAWYERS, SEEK TO EVADE MORAL AND LEGAL LIABILITY FOR THE COMPANIES THEY OWN AND CONTROL BY INSULATING THEMSELVES FROM THE DETAILS.

EXECUTIVES AT CORPORATE HEADQUARTERS OFTEN CAN CONTROL THEIR SUBSIDIARIES AND DRAW OUT PROFITS WITHOUT ASSUMING RESPONSIBILITY FOR CONTRACT OBLIGATIONS. THIS IS THE SO-CALLED CORPORATE VEIL THROUGH WHICH PROFITS AND CASH CAN FLOW UPWARDS TO CORPORATE HEADQUARTERS, BUT WHICH CUTS OFF FINANCIAL OR LEGAL LIABILITY.

WHERE RESPONSIBILITY IS INCREASINGLY DIVORCED FROM AUTHORITY, TRADITIONAL BUSINESS VALUES TEND TO BE LOST. CONTRACTS OFTEN BECOME MEANINGLESS. IT USED TO BE THAT A BUSINESSMAN'S HONOR DEPENDED ON HIS LIVING UP TO HIS CONTRACT – A DEAL WAS A DEAL. NOW, HONORING CONTRACTS IS BECOMING MORE A MATTER OF CONVENIENCE. CORPORATIONS ARE INCREASINGLY TURNING TO HIGH-PRICED LAW FIRMS WHICH, BY LEGAL MANEUVERING, OBFUSCATION, AND DELAY CAN EFFECTIVELY VOID ALMOST ANY CONTRACT – PROBABLY EVEN THE TEN COMMANDMENTS. UNDER THESE CIRCUMSTANCES GOVERNMENT CONTRACTS WITH SOME LARGE COMPANIES ARE BINDING ONLY TO THE EXTENT THE COMPANY WANTS TO BE BOUND.

EVER SINCE THE FAMOUS SANTA CLARA COUNTY VERSUS SOUTHERN PACIFIC RAILROAD CASE IN 1886, THE SUPREME COURT HAS ACCORDED CORPORATIONS, WHICH ARE CONSIDERED "PERSONS" IN LAW, THE RIGHTS

OF INDIVIDUALS UNDER THE 14TH AMENDMENT.

I SUBMIT THAT IF A CORPORATION IS TO BE ACCORDED PROTECTION AS A NATURAL PERSON UNDER THE 14TH AMENDMENT, THEN ALL THE OBLIGATIONS INCUMBENT ON "NATURAL PERSONS" OUGHT ALSO TO BE BINDING ON CORPORATIONS. AND, SINCE A CORPORATION ACTS THROUGH ITS OFFICIALS, THEY SHOULD BE HELD PERSONALLY LIABLE FOR ILLEGAL CORPORATE ACTS.

WOODROW WILSON EXPLAINED THE PROBLEM THIS WAY:

> "I REGARD THE CORPORATION AS INDISPENSABLE TO MODERN BUSINESS ENTERPRISE. I AM NOT JEALOUS OF ITS SIZE OR MIGHT, IF YOU WILL BUT ABANDON AT THE RIGHT POINTS THE FATUOUS, ANTIQUATED, AND QUITE UNNECESSARY FICTION WHICH TREATS IT AS A LEGAL PERSON; IF YOU WILL BUT CEASE TO DEAL WITH IT BY MEANS OF YOUR LAW AS IF IT WERE A SINGLE INDIVIDUAL NOT ONLY, BUT ALSO – WHAT EVERY CHILD MAY PERCEIVE IT IS NOT – A RESPONSIBLE INDIVIDUAL."

IF WE ARE EVER TO GET CORPORATIONS TO ACT AS A "RESPONSIBLE INDIVIDUAL" TO USE WILSON'S PHRASE, WE WILL NEED TO ATTACH FULL RESPONSIBILITY TO THE HUMAN BEINGS WHO SPEAK AND ACT FOR IT.

CERTAINLY THE PROFIT MOTIVE IS AND SHOULD BE THE DRIVING FORCE IN THE CAPITALIST SYSTEM – THE FREE ENTERPRISE SYSTEM IS BASED ON IT. HOWEVER, IN TODAY'S LARGE CORPORATIONS, MANAGERIAL PERFORMANCE TOO OFTEN IS MEASURED SOLELY IN FINANCIAL TERMS. IN THEIR WORLD OF FINANCIAL STATEMENTS, STATISTICAL REPORTS, STOCK CERTIFICATES, TENDER OFFERS, PRESS RELEASES, AND SO ON, MANAGERS OF LARGE CORPORATIONS OFTEN LOSE SIGHT OF THE MEN, MATERIALS, MACHINES AND CUSTOMERS OF THE COMPANIES THEY CONTROL. PREOCCUPIED WITH REPORTS AND NUMBERS RATHER THAN PEOPLE AND THINGS, THERE IS A TENDENCY TO OVERSIMPLIFY OPERATING PROBLEMS AND THEIR SOLUTIONS. FURTHER, BY FOCUSING TOO STRONGLY ON SO-CALLED BOTTOM LINE RESULTS, CORPORATE OFFICIALS CAN GENERATE PRESSURES THAT CAUSE SUBORDINATES TO ACT IN WAYS THEY WOULD NOT CONSIDER PROPER IN THEIR PERSONAL AFFAIRS.

UNDER PRESSURE TO MEET ASSIGNED CORPORATE PROFIT OBJECTIVES, SUBORDINATES SOMETIMES OVERSTEP THE BOUNDS OF PROPRIETY – EVEN THE LAW. THE CORPORATE OFFICIALS WHO GENERATE THESE PRESSURES, HOWEVER, ARE HIDDEN BEHIND THE REMOTE CORPORATE SCREEN, AND ARE RARELY, IF EVER, HELD ACCOUNTABLE FOR THE RESULTS.

IN RECENT YEARS, SEVERAL MAJOR NAVY SHIPBUILDERS, WHEN FACED WITH LARGE PROJECTED COST OVERRUNS RESORTED TO MAKING LARGE CLAIMS AGAINST THE NAVY. THESE LARGE CLAIMS WERE GREATLY INFLATED AND BASED ON HOW MUCH EXTRA THE CONTRACTOR WANTED RATHER THAN HOW MUCH HE WAS ACTUALLY OWED. IGNORING THEIR OWN RESPONSIBILITY FOR POOR CONTRACT PERFORMANCE, THEY GENERATED CLAIMS WHICH ATTRIBUTED ALL THE PROBLEMS TO GOVERNMENT ACTIONS AND DEMANDED HUNDREDS OF MILLIONS OF DOLLARS IN EXTRA PAYMENTS – ENOUGH TO RECOVER ALL THEIR COST OVERRUNS AND YIELD THE DESIRED PROFIT.

SOMETIMES THE CLAIMS WERE MANY TIMES THE DESIRED OBJECTIVE SO THAT THE COMPANY COULD APPEAR TO BE ACCOMMODATING THE NAVY BY SETTLING FOR A FRACTION OF THE CLAIMED AMOUNT.

In evaluating these claims I found numerous instances of apparent fraud. I documented these instances in great detail and, in accordance with Navy directives, sent these so-called reports of fraud to my superiors, recommending that they be referred to the Justice Department for investigation. Other Navy officials made similar reports. The Navy, after carefully reviewing these reports, formally referred them to the Justice Department.

In the 1970's the Navy referred the claims of four large shipbuilders to the Justice Department for investigation. The Justice Department, however, seems incapable of dealing with sophisticated procurement fraud – or perhaps undesirous of doing so. After nearly a decade of work, the status of the Justice Department's record in these cases is as follows:

- Litton was indicted four years ago for fraud, but the Justice Department has taken no action to try the case.
- The Justice Department conducted a lengthy investigation of Lockheed claims but did not issue an indictment. By now, the statute of limitations has expired.
- After investigating General Dynamics for four years, the Department of Justice recently announced they could find no evidence of criminal intent, although the claims were almost five times what the Navy actually owed.
- The Newport News investigation was recently dealt a serious blow when the Justice Department split up the investigating team and assigned the leading investigators

> OTHER WORK. THIS HAPPENED SHORTLY AFTER THEY HAD REPORTED THEIR FINDINGS IN THE NEWPORT NEWS CASE AND HAD ASKED THE DEPARTMENT FOR MORE HELP TO TRACK DOWN OTHER PROMISING LEADS.

I BELIEVE THE GROSSLY INFLATED CLAIMS TO WHICH THE NAVY WAS SUBJECTED DURING THE PAST DECADE ARE AN OUTGROWTH OF THE PHILOSOPHY THAT IN SOME COMPANIES "ANYTHING GOES" IN MEETING THE PROFIT OBJECTIVES SET BY SENIOR CORPORATE OFFICIALS.

WHILE PROFIT FIGURES MAY BE A CONVENIENT BASIS TO ASSESS MANAGEMENT PERFORMANCE, THEY CAN BE MANIPULATED, PARTICULARLY IN THE CASE OF LARGE CORPORATIONS WITH THEIR VARIOUS BUSINESSES. DRUCKER, THE MANAGEMENT EXPERT, ONCE SAID: "... ANY ACCOUNTANT WORTH HIS SALT CAN CONVERT ANY PROFIT FIGURE INTO A LOSS OR VICE VERSA IF GIVEN CONTROL OF THE ACCOUNTING DEFINITIONS ALL UNQUESTIONABLY 'WITHIN THE LIMITS OF PROPER ACCOUNTING PRACTICE'."

THROUGH "CREATIVE" ACCOUNTING, A LARGE COMPANY CAN TAILOR ITS FINANCIAL STATEMENTS TO CONVEY TO STOCKHOLDERS, AND OTHERS, A PICTURE QUITE DIFFERENT THAN THAT WARRANTED BY THE COMPANY'S PERFORMANCE. SOME LARGE CORPORATIONS HAVE BEEN ABLE TO GENERATE OPTIMISTIC FINANCIAL REPORTS EVEN WHEN THEY WERE NEAR THE POINT OF BANKRUPTCY.

BY ASSUMING, IN THEIR ACCOUNTING, THAT THEY WOULD BE AWARDED LARGE CLAIM PAYMENTS FROM THE GOVERNMENT, SOME SHIPBUILDERS, YEAR AFTER YEAR, WERE ABLE TO REPORT TO THE PUBLIC INCREASING PROFITS – EVEN RECORD PROFITS – AT THE SAME TIME THEY HAD BEEN REPORTING TO SENIOR DEFENSE OFFICIALS HUNDREDS OF MILLIONS OF

DOLLARS IN POTENTIAL LOSSES. THEY SIMPLY ASSUMED FOR FINANCIAL REPORTING PURPOSES THAT, THROUGH CLAIMS, THE NAVY WOULD END UP HAVING TO PAY FOR ALL COST OVERRUNS.

THE REASON I MENTION THESE PROBLEMS IS TO QUESTION AN INCREASINGLY POPULAR NOTION; NAMELY, THAT THE SO-CALLED FORCES OF THE MARKETPLACE ARE ENOUGH TO MOTIVATE LARGE CORPORATIONS TO ACT RESPONSIBLY AND EXERCISE SELF-RESTRAINT.

BUSINESSMEN REGULARLY COMPLAIN THAT OVERREGULATION BY GOVERNMENT INHIBITS THEIR FREEDOM AND ACCOMPLISHMENTS, YET IT IS THE VERY ACTS OF SOME OF THEM THAT HAVE MADE THE REGULATION NECESSARY. ADOLF BERLE PERCEPTIVELY OBSERVED THAT WHEN BUSINESS THREATENS TO ENGULF THE STATE, IT FORCES THE STATE TO ENGULF BUSINESS.

THE NOTION THAT WE HAVE A SELF-REGULATING, FREE MARKET ECONOMY THAT WILL ITSELF PROMPT A HIGH STANDARD OF ETHICAL BUSINESS CONDUCT IS NOT REALISTIC IN TODAY'S COMPLEX SOCIETY. THOSE WHO ADVOCATE EXCLUSIVE RELIANCE ON THE MARKET DO DISSERVICE TO CAPITALISM, SINCE THE RESULT IS OFTEN INCREASED GOVERNMENT INTERVENTION, THE VERY ANTITHESIS OF THEIR GOAL. ON THE OTHER HAND, THE DESTRUCTION OF CAPITALISM AND THE ESTABLISHMENT OF COMPLETE STATE CONTROL ARE INIMICAL TO ECONOMIC AND POLITICAL FREEDOM.

THE SURVIVAL OF OUR CAPITALIST SYSTEM THEREFORE DEPENDS ON FINDING A PROPER MIDDLE GROUND BETWEEN THESE TWO EXTREMES.

I BELIEVE THAT BUSINESSMEN MUST TREAT GOVERNMENT REGULATION REALISTICALLY, RATHER THAN WITH INSTINCTIVE OPPOSITION. MUCH

OF GOVERNMENT REGULATION IS ESSENTIAL TO PROTECT THE PUBLIC AGAINST THE RECURRENCE OF PAST ABUSES, AND BECAUSE IT IS UNREALISTIC TO EXPECT ANY GROUP TO TRULY POLICE ITSELF. BUSINESSMEN MUST FACE THE FACT THAT REGULATION IS INEVITABLE. BLIND OPPOSITION TO ALL REGULATION DETRACTS FROM THE VALID COMPLAINTS BUSINESS MAY HAVE ABOUT THE EXCESSES OF REGULATION.

OFTEN THE LARGEST BUSINESSES - THOSE LEAST SUBJECT TO THE RESTRAINTS OF FREE ENTERPRISE - ARE THE MOST OUTSPOKEN ADVOCATES OF THE CAPITALIST, FREE ENTERPRISE SYSTEM AS AN EFFECTIVE SAFEGUARD AGAINST THESE EXCESSES. THEY WANT THE PUBLIC TO BELIEVE THAT THEY BEHAVE IN ACCORDANCE WITH THE FREE ENTERPRISE SYSTEM, WHEN IN FACT THEY ESCAPE MANY RESTRAINTS OF THAT SYSTEM. CONSISTENTLY THEY LOBBY AGAINST NEW GOVERNMENT REGULATIONS. THEY HERALD THE VIRTUES OF COMPETITION AND THE MARKETPLACE AS IF THEY WERE SMALL BUSINESSMEN SUBJECT TO THESE FORCES. YET AT THE SAME TIME, THEY LOBBY FOR GOVERNMENT - THAT IS TAXPAYER ASSISTANCE IN THE FORM OF TAX LOOPHOLES, PROTECTED MARKETS, SUBSIDIES, GUARANTEED LOANS, CONTRACT BAILOUTS, AND SO ON.

BUSINESSMEN SHOULD VIGOROUSLY ADVOCATE RESPECT FOR LAW BECAUSE LAW IS THE FOUNDATION OF OUR ENTIRE SOCIETY, INCLUDING BUSINESS. FEW AREAS OF SOCIETY ARE AS DEPENDENT ON LAW AS IS BUSINESS. THE LAW PROTECTS SUCH ESSENTIAL RIGHTS OF BUSINESS AS INTEGRITY OF CONTRACTS. WHEN BUSINESSMEN BREAK THE LAW, IGNORE OR DESTROY ITS SPIRIT, OR USE ITS ABSENCE TO JUSTIFY UNETHICAL CONDUCT, THEY UNDERMINE BUSINESS ITSELF AS WELL AS THEIR OWN WELFARE.

THEY SHOULD BE CONCERNED WITH THE POOR RECORD OF LAW ENFORCEMENT AS IT RELATES TO THEM. THEY SHOULD BE CONCERNED ABOUT THE DOUBLE STANDARD WHERE AN ORDINARY CITIZEN IS PUNISHED MORE SEVERELY FOR A PETTY CRIME THAN CORPORATE OFFICIALS CONVICTED OF WHITE COLLAR CRIMES INVOLVING MILLIONS OF DOLLARS.

THEODORE ROOSEVELT WAS THIS NATION'S FOREMOST PROPONENT OF RUGGED INDIVIDUALISM AND A STRONG ADVOCATE OF BUSINESS. BUT HE WITNESSED THE GROWING CYNICISM AMONG ORDINARY CITIZENS TOWARD A GOVERNMENT THAT PERMITTED ONE LAW TO GOVERN POWERFUL CORPORATIONS AND ANOTHER FOR INDIVIDUAL CITIZENS. HE RECOGNIZED THAT CORPORATE LAWLESSNESS WAS UNDERMINING THE VERY FOUNDATION OF DEMOCRACY. IT WAS IN THIS SENSE THAT HE ENGAGED IN HIS FAMOUS BATTLES WITH THE "MALEFACTORS OF GREAT WEALTH."

ALTHOUGH I HAVE BEEN CRITICAL OF SOME CURRENT TRENDS IN BUSINESS, I AM NOT HOSTILE TO BUSINESS. DESPITE ITS PRESENT MORAL OBTUSENESS, I BELIEVE IN FREE ENTERPRISE AND THE CAPITALIST SYSTEM. NO OTHER SYSTEM OFFERS AS MUCH OPPORTUNITY FOR INDIVIDUAL FREEDOM AND ACCOMPLISHMENT.

CAPITALISM, BASED AS IT IS ON FREEDOM OF CHOICE, HELPS PRESERVE ALL OTHER FREEDOMS. DESPITE ITS MAN-DESIGNED IMPERFECTIONS, IT IS STILL THE BEST SYSTEM YET DEVISED BY MAN TO FOSTER A HIGH LEVEL OF ECONOMIC WELL-BEING TOGETHER WITH INDIVIDUAL FREEDOM. SHOULD OUR CAPITALIST SYSTEM BE DESTROYED, ITS DESTRUCTION WILL BE ACCOMPANIED BY THE LOSS OF MOST OF OUR OTHER LIBERTIES AS WELL.

THE "FOUNDING FATHERS" OF THIS NATION VALUED FREEDOM AND

CULTURE MORE THAN WEALTH. THEY BROUGHT FUNDAMENTAL HONESTY TO THE BUSINESS OF GOVERNMENT, AND DEALT WITH THEIR COUNTRYMEN ON FRANK AND OPEN TERMS. THEY LIVED BY THE IDEALS THEY PROPOUNDED. THE DECLARATION OF INDEPENDENCE WAS NO IDLE STATEMENT FOR THEM. IN SUPPORT OF IT THEY PLEDGED, AND SOME LOST, THEIR LIVES AND FORTUNES. THROUGH THEIR BELIEFS AND INDIVIDUAL DEEDS OUR REVOLUTIONARY LEADERS STIRRED THEIR FELLOW COUNTRYMEN TO STRUGGLE AND SACRIFICE FOR INDEPENDENCE. MORE IMPORTANT, THEY SET A MORAL TONE AND EXAMPLE FOR THEIR AGE AND FOR OURS. WE SHOULD TRY AS BEST WE CAN TO EMULATE THEM.

ON A MORE PERSONAL BASIS, I OWE MORE TO THIS COUNTRY THAN I CAN EVER REPAY. IT PROVIDED A REFUGE, A HOME, AND OPPORTUNITIES FOR MY PARENTS AND FOR ME AT A TIME WHEN THESE WERE NOT AVAILABLE ABROAD. THROUGH THE NAVAL ACADEMY, THIS COUNTRY GAVE ME AN EDUCATION I COULD NOT OTHERWISE AFFORD. THE NAVY ALSO OFFERED VALUABLE EXPERIENCE AND A MEANS TO TRY IN SOME WAY TO REPAY THESE DEBTS - AND I WAS PAID A SALARY IN ADDITION.

IT HAS BEEN A GREAT PRIVILEGE TO WORK WITH MANY MEMBERS OF CONGRESS FOR THESE MANY YEARS. IT IS HARD TO IMAGINE WHERE WE WOULD BE TODAY IN THE NAVAL NUCLEAR PROPULSION PROGRAM WERE IT NOT FOR THE LEADERSHIP CONGRESS HAS PROVIDED AND FOR ITS SUPPORT.

WHILE THERE ARE ALWAYS ROUGH SPOTS AND MISTAKES ON ALL SIDES, THE VALUE OF CONGRESSIONAL OVERSIGHT OF THE EXECUTIVE BRANCH HAS BEEN BORNE OUT TIME AND AGAIN. IN PROVIDING FOR A STRONG NAVY, FOR EXAMPLE, CONGRESS HAS SHOWN FAR MORE VISION

THAN THE EXECUTIVE BRANCH. IT WAS CONGRESS, NOT THE DEFENSE DEPARTMENT, THAT PUSHED FOR THE NAUTILUS. IT WAS CONGRESS THAT RECOGNIZED THE IMPORTANCE OF NUCLEAR POWER FOR MAJOR COMBATANT SHIPS. IT WAS CONGRESS THAT RECOGNIZED THE NEED FOR HIGHER SPEED SUBMARINES AND INITIATED CONSTRUCTION OF OUR FAST ATTACK SUBMARINES - THE LOS ANGELES CLASS - EVEN WHILE EFFORTS WERE BEING MADE IN THE DEFENSE DEPARTMENT TO BUILD SLOWER, LESS CAPABLE SHIPS, AND EVEN TO SINK SOME WE ALREADY HAD.

I HAVE ALWAYS BEEN TREATED WITH RESPECT AND COURTESY BY THE MEMBERS OF CONGRESS - FAR MORE THAN I DESERVED. I HAVE HAD YOUR SUPPORT - MORE THAN ANYONE COULD OR SHOULD EXPECT.

WHEN I TESTIFIED BEFORE YOUR COMMITTEE I HAVE ALWAYS ENJOYED GREAT COURTESY AND HAVE BEEN ASKED SEARCHING AND TO-THE-POINT QUESTIONS.

FOR ALL THE CONSIDERATION YOU HAVE SHOWN ME, FOR YOUR EFFORTS TO ACHIEVE EFFICIENCY IN GOVERNMENT, AND PARTICULARLY FOR YOUR FRIENDSHIP, I THANK YOU.

# APPENDIX

## RECOMMENDATIONS FOR IMPROVEMENT
## IN THE
## DEPARTMENT OF DEFENSE

SENIOR CIVILIAN OFFICIALS APPOINTED TO POSITIONS IN THE DEPARTMENT OF DEFENSE TRADITIONALLY EXPRESS THEIR COMMITMENT TO REDUCE WASTE AND PROMOTE EFFICIENCY. THEY ISSUE DIRECTIVES URGING SUBORDINATES TO SAVE GOVERNMENT MONEY, PROTECT THE GOVERNMENT'S INTERESTS, COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS, REPORT FRAUD, AND SO ON.

THESE POLICY DIRECTIVES, HOWEVER, GENERALLY TURN OUT TO BE PRIMARILY PUBLIC RELATIONS DOCUMENTS. WHILE CREATING AN APPEARANCE OF ACTION AND PROGRESS, THEY FREQUENTLY OBFUSCATE MORE FUNDAMENTAL PROBLEMS. EVENTUALLY THEY ARE QUIETLY ABANDONED - AND WITH NO ACTION TAKEN.

POLICY DIRECTIVES WILL NOT PROMOTE GREATER EFFICIENCY OR DISCOURAGE WASTE IN THE DEFENSE DEPARTMENT. INSTEAD WE NEED TO CREATE, BY ACTIONS RATHER THAN WORDS, AN ENVIRONMENT IN WHICH THOSE IN THE DEFENSE DEPARTMENT CAN OPERATE EFFICIENTLY AND OBTAIN FROM INDUSTRY NEEDED GOODS AND SERVICES AT MINIMUM COST TO THE TAXPAYER.

I HAVE THEREFORE SUMMARIZED IN THIS APPENDIX RECOMMENDATIONS FOR SPECIFIC IMPROVEMENTS IN THE ORGANIZATION OF THE DEFENSE DEPARTMENT, IN MILITARY PERSONNEL POLICIES, AND IN PROCUREMENT.

## ORGANIZATION OF THE DEFENSE DEPARTMENT

There is a need to streamline and better organize the Department of Defense. Excessive organizational layering, overstaffing, transient management, short tours of duty, preoccupation with management systems, cumbersome and lengthy budget review processes, as well as other factors combine to result in inefficiency and waste.

Eliminate unnecessary organizational layering. It is detrimental to performance and results in much delay, wasted time, and diluted responsibility. In many cases, the "checkers" outnumber the "doers". For example, the Office of the Chief of Naval Material could be eliminated in its entirety with no adverse effect. In fact, this would save money and improve the efficiency of subordinate commands.

In the Defense Department those at the top are too far removed from the subordinates who are knowledgeable and must do the work. As a result, the top people tend to seek advice from their personal staffs, consultants, and contractors, rather than from the Department's own professionals. The previous two Secretaries of the Navy discouraged recommendations from their subordinates while maintaining an open door to some large defense contractors.

Reduce the large numbers of people staffing the offices at each layer. When the Office of the Secretary of Defense was established in 1946, the Secretary of Defense was to have three special assistants and a small executive office. Today there

ARE OVER 1,000 ON THE SECRETARY'S STAFF. THIS VAST STAFF SLOWS DOWN DECISION MAKING, DIMINISHES THE JOB OF THE SERVICE SECRETARIES, AND HAS NON-KNOWLEDGEABLE AND NON-RESPONSIBLE OFFICIALS MAKING DECISIONS.

STOP THE UNDUE RELIANCE IN THE MILITARY ON MANAGEMENT INFORMATION SYSTEMS AND SYSTEMS ANALYSIS. THE PREOCCUPATION WITH "MANAGEMENT" IN THE DEFENSE DEPARTMENT IS STIFLING. AT EACH LEVEL OF THE BUREAUCRACY, PEOPLE TRY TO IMPRESS HIGHER AUTHORITIES BY ACCUMULATING MASSES OF UNNECESSARY INFORMATION BEFORE MAKING A RECOMMENDATION.

## MILITARY PERSONNEL POLICIES

REDUCE THE NUMBER OF FLAG OFFICERS IN THE DEFENSE DEPARTMENT. THE SAVINGS WILL COME FROM ELIMINATING THE STAFFS THAT CLING AROUND EACH OF THEM. UNNECESSARY STAFFS GENERATE DEMANDS FOR INFORMATION THAT DETRACTS SUBORDINATE COMMANDS FROM THEIR "DAY-TO-DAY" WORK. SOME OF THE FLAG OFFICER POSITIONS EXIST ONLY TO TAKE CARE OF OFFICERS WHOSE TURN IT IS TO HAVE SHORE DUTY.

THE MILITARY ESTABLISHMENT SHOULD BE RUN FOR THE GOOD OF THE NATION, NOT FOR THE CAREER ENHANCEMENT OF ITS OFFICERS. OFFICERS SHOULD NOT HAVE TO FREQUENTLY CHANGE DUTY IN ORDER TO BE PROMOTED TO FLAG RANK.

THE WASTEFUL PRACTICE OF TRANSFERRING MILITARY PEOPLE FROM ONE LOCATION TO ANOTHER EVERY TWO OR THREE YEARS SHOULD BE STOPPED. IN ADDITION TO HIGH COST, FREQUENT PERSONNEL TRANSFERS ARE DISRUPTIVE AND CAUSE INEFFICIENCY. THE MAJOR SAVINGS, HOWEVER, WILL COME FROM LEAVING PEOPLE ON THE JOB LONG ENOUGH

TO LEARN IT AND TO BE HELD ACCOUNTABLE FOR RESULTS.

PAY MILITARY PERSONNEL A REGULAR SALARY RATHER THAN TODAY'S CONFUSING SYSTEM OF PAY, ALLOWANCES, AND FRINGE BENEFITS. A SALARY SYSTEM WOULD BE FAR SIMPLER AND MORE EQUITABLE THAN THE PRESENT SYSTEM. MILITARY PERSONNEL, AS WELL AS THE PUBLIC, WOULD THEN HAVE A BETTER APPRECIATION OF HOW MUCH THEY ARE ACTUALLY BEING PAID. SALARIES MIGHT ALSO REDUCE PUBLIC CRITICISM OF MILITARY BENEFITS. SPECIAL PAY IN ADDITION TO SALARIES SHOULD BE GRANTED ONLY AS NECESSARY TO ATTRACT PEOPLE WITH ESSENTIAL SKILLS IN SHORT SUPPLY.

PHASE OUT THE PRACTICE OF MILITARY PERSONNEL RECEIVING RETIRED PAY AFTER TWENTY YEARS OF SERVICE. ENCOURAGE MILITARY PEOPLE TO PURSUE CAREERS OF THIRTY YEARS UNLESS DISABLED OR NOT ABLE TO MEET THE NEEDS OF THE SERVICE.

INCREASE THE RETURN ON INVESTMENT THE NAVY GETS FROM THE TRAINING OF MIDSHIPMEN AT THE NAVAL ACADEMY AND IN THE NAVAL RESERVE OFFICER TRAINING CORPS (NROTC) PROGRAM. THE CURRICULA AT BOTH THE NAVAL ACADEMY AND THE NROTC COLLEGES OR UNIVERSITIES SHOULD ASSURE THAT MIDSHIPMEN DEVELOP A PROPER TECHNICAL BACKGROUND TO ENABLE THEM TO MEET THE NEEDS OF THE NAVY RATHER THAN SIMPLY PURSUING THEIR OWN PERSONAL WHIMS. MIDSHIPMEN WHO RESIGN AFTER THEIR FIRST TWO YEARS OF GOVERNMENT-FUNDED EDUCATION SHOULD BE REQUIRED TO SERVE AS AN ENLISTED PERSON OR PAY BACK THE COST OF THEIR EDUCATION.

CUT BACK THE OFFICER POSTGRADUATE EDUCATION PROGRAM. FEW JOBS IN THE NAVY REQUIRE A GRADUATE DEGREE, PARTICULARLY

IN THE NON-TECHNICAL AREAS WHERE MANY NAVAL OFFICERS CONDUCT THEIR STUDIES. POSTGRADUATE EDUCATION HAS BECOME, IN MANY CASES, A FRINGE BENEFIT WHERE AN OFFICER CAN, AT GOVERNMENT EXPENSE, IMPROVE HIS CREDENTIALS FOR A JOB AFTER HE LEAVES THE MILITARY.

REDUCE MANPOWER REQUIREMENTS BY CONSOLIDATING AND UNIFYING MILITARY SHORE ESTABLISHMENTS. IT IS NOT NECESSARY TO HAVE BOTH NAVY AND ARMY HOSPITALS IN THE SAME CITY, NOR AN AIR BASE FOR THE NAVY AND ANOTHER FOR THE AIR FORCE. SELECTED MILITARY TRAINING ACTIVITIES AND OTHER SHORE ESTABLISHMENTS COULD AND SHOULD BE COMBINED, WITH A SAVINGS IN PERSONNEL AND OTHER RESOURCES.

## PROCUREMENT

THE DEPARTMENT OF DEFENSE NEEDS TO BECOME A MORE DEMANDING CUSTOMER WITH REGARD TO QUALITY, PERFORMANCE, AND PRICE. DEFENSE CONTRACTORS PURSUING THEIR OWN FINANCIAL INTERESTS DO NOT AUTOMATICALLY PROVIDE QUALITY GOODS AND SERVICES AT THE LOWEST POSSIBLE COST. INCREASINGLY, DEFENSE BUSINESS IS CONCENTRATED IN LARGE CORPORATIONS WHERE FINANCIAL PEOPLE RUN THE BUSINESS WITH LITTLE OR NO UNDERSTANDING OF THEIR PRODUCTS OR CUSTOMERS. LIKE THE DEFENSE DEPARTMENT, MANY LARGE COMPANIES ARE PLAGUED WITH TRANSIENT MANAGEMENT, EXCESSIVE ORGANIZATIONAL LAYERING, LACK OF ACCOUNTABILITY, PREOCCUPATION WITH MANAGEMENT SYSTEMS AND INABILITY TO FOCUS MANAGEMENT ATTENTION ON LONG TERM CONSIDERATIONS.

THE DEFENSE DEPARTMENT'S INDEPENDENT RESEARCH AND DEVELOPMENT (IR&D) PROGRAM SHOULD BE ABOLISHED OR DRASTICALLY CUT BACK.

The Department of Defense spends $1.5 to $2 billion a year subsidizing IR&D projects, in addition to the research and development contracts the Defense Department awards directly. Contractors initiate these projects, yet the Defense Department has no say over the work to be done and has no rights to the ideas developed – even in cases where the Government pays nearly the total cost.

The Defense Department should not tolerate contractors who, through their own inefficiency, incur cost overruns, fail to meet delivery schedules or quality requirements, and try to shift these problems to the Government through inflated claims and threatened work stoppages. During the past decade these problems plagued Navy shipbuilding and they will inevitably recur. Defense officials encourage poor performance, buy-ins, and claims when, to resolve a dispute, they settle claims for more than the Government legitimately owes. In this regard, Secretary Lehman deserves higher marks than his predecessors for insisting that General Dynamics not be awarded more TRIDENT or LOS ANGELES Class submarine construction contracts until that company abandoned its so-called "insurance claims" to recover the cost of correcting defective workmanship.

In undertaking an expanded Navy shipbuilding program, Congress and the Defense Department must take care not to repeat the problems experienced during the 1970's. During that period neither Electric Boat, Newport News, nor Ingalls were able to manage effectively the large manpower buildups needed to perform

THE CONTRACTS THEY HAD SIGNED. THIS LED TO EXTENSIVE COST AND SCHEDULAR PROBLEMS AT ALL THREE YARDS AND ULTIMATELY A $2.7 BILLION BACKLOG OF UNSETTLED CLAIMS AGAINST THE NAVY.

TO OBTAIN THE ADVANTAGES OF COMPETITIVE BIDDING THE DEFENSE DEPARTMENT MUST ENFORCE ITS CONTRACTS. THE NAVY HAS AWARDED 32 SHIPS OF THE SSN 688 CLASS THROUGH COMPETITIVE BIDDING. ELECTRIC BOAT, THE LESS EFFICIENT YARD, HAS WON CONTRACTS FOR A TOTAL OF 20 SHIPS; NEWPORT NEWS ONLY 12. BECAUSE THE NAVY WAS UNABLE TO ENFORCE THE CONTRACTS, IT ENDED UP PAYING ELECTRIC BOAT MORE FOR THESE SHIPS THAN IT HAD TO PAY FOR COMPARABLE SHIPS BOUGHT FROM NEWPORT NEWS AND THE NEWPORT NEWS SHIPS HAVE BEEN DELIVERED FAR EARLIER.

CONGRESS SHOULD PASS LEGISLATION PROVIDING EXPLICIT AUTHORITY FOR THE DEPARTMENT OF DEFENSE TO AWARD CONTRACTS TO OTHER THAN THE LOWEST BIDDER IN CASES OF AN APPARENT BUY-IN ATTEMPT, OR WHEN THE SECRETARY DETERMINES THAT AWARD TO OTHER THAN THE LOWEST BIDDER WOULD LIKELY RESULT IN COST SAVINGS TO THE GOVERNMENT. FOR SEVERAL YEARS, THE NAVY WAS CONVINCED ELECTRIC BOAT WAS BIDDING UNREALISTICALLY LOW TO TAKE SSN 688 BUSINESS AWAY FROM NEWPORT NEWS. NAVY LAWYERS TOOK THE POSITION THAT THE NAVY WAS OBLIGED TO AWARD TO THE LOW BIDDER ANYWAY BECAUSE ELECTRIC BOAT COULD DO THE WORK.

TO PROVIDE THE GOVERNMENT LEVERAGE IN DEALING WITH SOLE SOURCE CONTRACTORS, CONGRESS SHOULD REQUIRE THE SECRETARY OF DEFENSE TO CERTIFY, IN SUPPORT OF BUDGET REQUESTS, THAT HE HAS OBTAINED CONTRACTOR AGREEMENT ON SUITABLE TERMS AND CONDITIONS, INCLUDING TERMS THAT WOULD PROVIDE APPROPRIATE PROTECTION AGAINST AFTER-THE-FACT CLAIMS IF THE PROPOSED PROGRAM IS FUNDED. IF THE DEFENSE DEPARTMENT IS UNABLE TO GET APPROPRIATE CONTRACTOR ASSURANCES ON AN IMPORTANT PROGRAM, IT WOULD THEREBY BE IN A POSITION TO MAKE THE FACTS KNOWN TO CONGRESS AND SEEK LEGISLATIVE ASSISTANCE.

SENIOR DEFENSE OFFICIALS SHOULD NOT RELY HEAVILY ON SPECIAL FINANCIAL INCENTIVES AND BONUSES TO ENTICE CONTRACTORS INTO PERFORMING EFFICIENTLY. PAST EXPERIENCE IN THE SHIPBUILDING INDUSTRY SHOWS THAT THESE HAVE NOT WORKED AND THAT THE NAVY HAS ENDED UP PAYING MORE WITHOUT ACTUALLY IMPROVING PERFORMANCE. INSTEAD OF SPURRING IMPROVED PERFORMANCE, FINANCIAL INCENTIVES HAVE, IN THE PAST, MERELY PROMPTED CONTRACTORS TO TRY TO QUALIFY FOR THE BONUS, REGARDLESS OF PERFORMANCE, BY HOLDING OUT IN NEGOTIATIONS FOR HIGHER TARGET COSTS AND EXTENDED DELIVERY SCHEDULES. DURING PERFORMANCE OF THESE CONTRACTS, THERE IS A GREATER INCENTIVE TO CREATE BASES FOR SUBSEQUENT CLAIMS - AGAIN TO TRY TO QUALIFY FOR THE BONUS EVEN IF THE SHIP IS LATE OR EXCEEDS THE ORIGINAL TARGET COST.

CONGRESS SHOULD ESTABLISH A ONE YEAR STATUTE OF LIMITATIONS ON SUBMISSION OF CONTRACT CLAIMS, AND PROHIBIT PAYMENT OF PUBLIC FUNDS FOR CLAIMS NOT FULLY DOCUMENTED AND SUBMITTED WITHIN THIS PERIOD. THIS WOULD PROVIDE CONTRACTORS AMPLE TIME TO IDENTIFY AND SUBMIT ALL LEGITIMATE CLAIMS, BUT FORECLOSE THE PRESENT PRACTICE OF CONTRACTORS WAITING FOR SEVERAL YEARS TO SEE HOW WELL THEY MAKE OUT ON A GIVEN CONTRACT AND THEN SUBMITTING

CLAIMS TO MAKE UP FOR THEIR OVERRUNS. CONTRACTORS, PARTICULARLY SHIPBUILDERS, PRESENTLY HAVE AN INCENTIVE TO DELAY SUBMITTING CLAIMS. THE DELAY ENABLES THEM TO OBFUSCATE ISSUES AND FRUSTRATE GOVERNMENT ANALYSIS OF THE CLAIM. WHEN CLAIMS ARE SUBMITTED YEARS AFTER THE EVENT, THE KNOWLEDGEABLE PEOPLE IN GOVERNMENT FREQUENTLY HAVE LEFT, LEAVING THE GOVERNMENT AT A DISADVANTAGE.

TO DETER THOSE WHO WOULD STOP WORK ON CERTAIN DEFENSE CONTRACTS IN CONTRADICTION OF THEIR CONTRACT OBLIGATIONS, THE DEFENSE DEPARTMENT SHOULD BE REQUIRED TO STOP FURTHER PAYMENTS ON ALL CONTRACTS WITH ANY CORPORATION DURING THE PERIOD IN WHICH ANY SEGMENT OF THAT CORPORATION DOES NOT PROCEED IN GOOD FAITH TO PERFORM ANY DEFENSE CONTRACT OR SUBCONTRACT. CONGRESS SHOULD ALSO ENACT LEGISLATION TO REQUIRE THAT A CONTRACTOR WHO STOPS WORK ON A DEFENSE CONTRACT AS A RESULT OF A CONTRACT DISPUTE WILL, FOR ANY NEW CONTRACTS AWARDED IN THE SUCCEEDING TEN YEARS, BE REQUIRED TO OBTAIN, AT HIS OWN EXPENSE, A PERFORMANCE BOND, THE COST OF WHICH MAY NOT BE PASSED ON TO THE GOVERNMENT.

CONGRESS SHOULD PROHIBIT THE DEFENSE DEPARTMENT FROM PROVIDING INTERIM FINANCING TO CONTRACTORS BEYOND AMOUNTS THE DEPARTMENT DETERMINES THEY ARE OWED. IN THIS WAY, CONTRACTORS WILL HAVE AN INCENTIVE TO RESOLVE A CONTRACT DISPUTE QUICKLY, AND ON ITS MERITS. THE PRACTICE OF PAYING CONTRACTORS MONEY THAT IS IN DISPUTE, PENDING THE OUTCOME OF A CASE, ENCOURAGES SHIPBUILDERS AND THEIR CLAIMS LAWYERS TO DELAY ADJUDICATION OF RELATIVELY SIMPLY DISPUTES ALMOST INDEFINITELY.

CONGRESS SHOULD REQUIRE THE NAVY TO REINSTITUTE NUCLEAR SUBMARINE CONSTRUCTION IN NAVAL SHIPYARDS. THIS WOULD PROVIDE NEEDED CONSTRUCTION CAPACITY, MAINTAIN THE NAVY'S OWN CONSTRUCTION CAPABILITY, AND PROVIDE ALTERNATIVES IN CASES WHERE PRIVATE YARDS DECIDE TO DEAL IMPROPERLY WITH THE GOVERNMENT.

THE JUSTICE DEPARTMENT SHOULD VIGOROUSLY ENFORCE FEDERAL LAWS WHICH MAKE IT A CRIME TO SUBMIT FALSE CLAIMS AGAINST THE GOVERNMENT. DESPITE STRONG SOUNDING WORDS ABOUT CRACKING DOWN ON FRAUD, THE DEPARTMENT SEEMS TO BE HEADED IN THE OPPOSITE DIRECTION. OF THE FOUR SHIPBUILDING CLAIM CASES THAT THE NAVY HAS REFERRED TO THE DEPARTMENT OF JUSTICE FOR INVESTIGATION OF POSSIBLE FRAUD, THE DEPARTMENT:

o INDICTED LITTON FOUR YEARS AGO, BUT HAS TAKEN NO ACTION TO TRY THE CASE.

o INVESTIGATED LOCKHEED'S GREATLY INFLATED CLAIMS BUT TOOK NO ACTION TO INDICT.

o INVESTIGATED GENERAL DYNAMICS' GREATLY INFLATED CLAIMS AND RECENTLY ANNOUNCED THERE WAS NO EVIDENCE OF CRIMINAL INTENT.

o DEALT A SERIOUS BLOW TO THE INVESTIGATION OF NEWPORT NEWS CLAIMS BY SPLITTING UP THE INVESTIGATING TEAM AND ASSIGNING THEM OTHER WORK SHORTLY AFTER THEY HAD ASKED THE DEPARTMENT FOR MORE HELP TO TRACK DOWN PROMISING LEADS.

THE JUSTICE DEPARTMENT HAS DEMONSTRATED A TOTAL INABILITY TO DEAL EFFECTIVELY WITH FALSE CLAIMS PREPARED BY SOPHISTICATED

CLAIMS LAWYERS AND A TOTAL LACK OF COMMITMENT TO APPLYING THE NECESSARY RESOURCES TO THESE CASES.

I HOPE THE GOVERNMENT WILL ADOPT MY RECOMMENDATIONS AND ACQUIRE AN ABILITY AND WILLINGNESS TO ENFORCE CONTRACTS. HOWEVER, THE NAVY MUST HAVE SHIPBUILDING FACILITIES AVAILABLE IN ORDER TO FULFILL ITS MISSION WHETHER OR NOT IT CAN ENFORCE CONTRACTS. IF THE NAVY IS UNWILLING OR UNABLE TO ENFORCE ITS CONTRACTS, AND MUST PAY A SHIPBUILDER'S COSTS REGARDLESS OF CONTRACT RESPONSIBILITIES UNDER FIXED PRICE CONTRACTS, I BELIEVE WE WOULD BE BETTER OFF ACQUIRING OR LEASING MAJOR SHIPYARDS AND OPERATE THEM AS A GOVERNMENT-OWNED CONTRACTOR-OPERATED FACILITY.

Senator **Proxmire**. Admiral, I want to thank you for your inspiring statement. It is one that I will always remember, and certainly it will be a high point of the time I've spent in the Senate.

### DEFENSE SPENDING

A big issue in this country today is how much we're spending for defense. It is an issue that relates to our economic health. It is an issue that relates, of course, also to our military security.

In your opinion, as one who has served in the military, as Senator Jackson said, longer than perhaps any man in history and certainly with great excellence, are we spending more than we need to spend on national defense? Is it possible to spend such amounts well or is the pace of the buildup too fast?

Admiral **Rickover**. I believe we are spending too much, sir.

Senator **Proxmire**. You think we are spending too much?

Admiral **Rickover**. I think we are spending too much. I think we should be more selective in our spending. There are certain areas from where it is obvious danger is going to come if it does come. I believe we should concentrate on those areas. When anyone has a large business establishment, it is self-limiting because, if it expands too far, too fast, you stop making a profit. In Government there is no such limitation and there is little strict scrutiny, sir.

### EXCESSIVE ROTATION IN JOBS

Consider the situation. In the Defense Department the military changes jobs every 2 or 3 years. On the civilian side, the top people are political appointees and generally come in without experience for short periods of time. So you have two groups constantly rotating jobs and no one ever gets time to find out what is really going on. I believe considerable money could be saved in the Defense Department. There are areas that can be reduced. I do not wish to get into details right now but, you know that I have thought about this matter for many years. I include a number of recommendations in the appendix to my prepared statement.

Senator **Proxmire**. Well, you have given us a very——

### NUCLEAR SUBMARINES

Admiral **Rickover**. For example, take the number of nuclear submarines. I will hit right close to home. I see no reason why we must have just as many as the Russians. At a certain point there is sufficiency. What is the difference whether we have 100 nuclear submarines or 200? I do not see what difference it makes. We can sink everything on the oceans several times over with the number we have, and so can they. That is the point I am making.

There has to be some judgment used. Submarines are very expensive items. They take a lot of time and money to build—taxpayers' money. I am not giving you any party line. I believe you asked me for what I personally believe.

Senator **Proxmire**. Let me get specific on the nuclear submarines. We now have 91 submarines.

Admiral **Rickover**. We have more than that. We now have 121.

Senator **Proxmire**. I was talking about attack submarines.

Admiral **Rickover**. I will give you the total. We have 33 ballistic missile submarines including one Trident; 88 nuclear attack submarines which includes 7 converted ballistic missile submarines. We have 21 additional attack submarines and 8 additional Tridents authorized. If you add the operational and authorized attack submarines, that is enough. What are we going to do with more? We need to continue to build submarines to maintain an adequate level and to replace those that wear out or become obsolete. However, the way we design them and build submarines now, they should last for 30 years.

### WEAPONS REDUNDANCY

Senator **Proxmire**. There is talk about redundancy. There is a feeling that if we do not have more than we would seem to need that maybe what we have would be able to be detected, located, and destroyed, and would put us in a position where we wouldn't have the ability to retaliate after a first strike by the Soviet Union.

Admiral **Rickover**. How far do you want to carry this? You are asking me for my opinion. I believe I have reasonably good judgment in this particular matter because I started the game. I do not think it is necessary to keep on adding all the time if you have achieved an adequate force. That is very expensive and takes much of the taxpayers' money. I mentioned earlier the word "sufficiency." I am not just giving you a party line.

Senator **Proxmire**. I understand. You see, the difficulty is that this is constantly changing, isn't it? The military technology is moving ahead very, very rapidly. I'm wondering, is our defense buildup justified to what the Soviet Union is doing? They're moving ahead. Have we been overtaken or will we be overtaken if we don't increase our budget as time goes on? You say we need no more. Would that be enough for the foreseeable future?

Admiral **Rickover**. I am probably more familiar with what the Soviets are doing along this line than you are, sir.

Senator **Proxmire**. I'm sure of that.

Admiral **Rickover**. At least I know what information we do have. I will give you another thought along that line since you are talking about military matters.

In my opinion, a future naval war may well be decided under the polar ice. That probably will be the only place where submarines can operate unfettered in the future.

Senator **Proxmire**. Let me make sure I get an answer to the question. First, is our defense buildup justified with what the Soviet Union is doing?

Admiral **Rickover**. First, I must say I am no expert on the Army or Air Force. I cannot talk about them. I can say things but they are based on my experience in other areas. I would like not to get into areas where I am not expert. But I believe I do have expertise in submarines. I do not believe it is necessary to match the Russians, submarine for submarine.

### AIRCRAFT CARRIERS

Senator **Proxmire**. Now the Defense Department's fiscal year 1983 budget requests funding for two nuclear-powered aircraft carriers at a construction cost of about $6 billion. It doesn't include the cost of the planes which is considerably more than $6 billion. In fact, it's more than twice that. Considering the capability of the Soviet submarines, how long do you think one of these aircraft carriers would last in the case of an all-out war?

Admiral **Rickover**. About 2 days.

Senator **Proxmire**. About 2 days?

Admiral **Rickover**. Is that a direct answer?

Senator **Proxmire**. Yes, sir. How about the whole fleet of carriers?

Admiral **Rickover**. If they are in port they will last a little longer.

Senator **Proxmire**. How much longer?

Admiral **Rickover**. I don't know. If you use ballistic missiles, it does not make any difference whether or not you have carriers.

Senator **Proxmire**. Wouldn't they be more vulnerable in port than at sea?

Admiral **Rickover**. If the enemy decided to use ballistic missiles, they probably would be.

Senator **Proxmire**. I'm talking about a confrontation with the Soviet Union in which nuclear weapons are used.

Admiral **Rickover**. Well, if there is a confrontation with nuclear weapons, there is no point to discussing it.

I think the whole military buildup is silly on both sides. It is just a waste of material. Material is important because the kind of material we use in this country and all over the world, is getting scarce and more expensive. From the human standpoint this is a very wasteful generation. We are wasting items that can never be replaced because minerals do not grow. You can replace anything that grows. But you cannot replace minerals. Even when you can find substitutes it takes a great deal of energy to use these substitutes, and energy resources are really the limiting feature of the industrial processes.

I am talking from a broad philosophical standpoint. The important thing to conserve is energy because that ultimately limits us. Every form of energy, including nuclear power, creates its own adverse consequences. So we are doing things today from the standpoint of the future of the human race that are incompatible with that objective.

Most people do not have enough facts to understand fully what is going on. The ordinary person depends on his legislators and Government officials. And he is making a big mistake when he does so.

## 600-SHIP NAVY

Senator **Proxmire**. Admiral, the Secretary of the Navy has announced administration plans to develop a 600-ship Navy. Is that realistic or necessary?

Admiral **Rickover**. The Secretary of the Navy is in a better position to decide that than I am. He is supposed to have the capability to take an overall view. I am not in a position to know what motivates him. He never talks to me.

Senator **Proxmire**. He never talks to you?

Admiral **Rickover**. No, sir, not on military matters.

Senator **Proxmire**. When did you last talk to him?

Admiral **Rickover**. I wrote a note on that. On November 13, 1981, I met with him and the Secretary of Defense at his invitation. The Secretary of Defense told me I would be replaced when my current tour ended. He offered me a position as Adviser to the President for Civilian Nuclear Matters. The Secretary of the Navy was present when I met with the President recently. That was the last time I met him.

Senator **Proxmire**. Well, you must have some judgment as an outstanding expert in the Navy, not only in nuclear submarines but as one who served so many years, as to whether or not a 600-ship Navy is realistic or necessary. We have to make that judgment here in Congress and many of us would rely very heavily on your advice, more than we would on the advice of civilian Secretaries.

Admiral **Rickover**. Of course, you cannot just mention merely a number of ships because that includes all types of ships.

Senator **Proxmire**. I realize that.

Admiral **Rickover**. It is difficult for me to answer that question. But, in general, I think we are overarming altogether. You have a situation where, with weapons getting more powerful and more destructive, the argument is made we also need more. Something seems to be illogical with that proposition.

I can understand the issue of placing weapons in different places so they cannot be all destroyed at one time; that I can understand. But I believe there gets to be a point where more and more arms become meaningless. I cannot be exact with you, but I have that philosophical feeling that we are spending too much on defense. There are always scare words used to justify defense expenditures. The people who run the military tend to get what they want.

### QUALIFICATIONS OF CIVILIAN DEFENSE OFFICIALS

Nobody ever asks the question: What is the expertise of the Secretary of Defense, for example, for his job? Or what is the expertise of the Secretary of the Navy for his job? Nobody ever asks those questions.

Senator **Proxmire**. You asked the question. You answer it. What is the expertise of our Secretary of Defense and Secretary of the Navy?

Admiral **Rickover**. The Secretary of Defense is a businessman. He has experience in business and that is what we generally get to run the military. I am not criticizing the individual, you understand, I am criticizing the system. He has experience in business. The reason he is in his defense job is because of the Founding Fathers' fear, based on their experience with the English Government, that if the military gets too powerful they could take over the Government. That is the only basic reason for having civilians run the military. There is no other reason.

However, when these civilians get appointed to the job, they feel they must make something out of it.

They have a short time to prove their worth. They can do all manner of things they could never have done in civilian life. There is no profit and loss sheet, and no board of directors to monitor them. Some civilian appointees are generally activists so they start trying to run the job. That is my simple description. For example, what if we did not have them at all? What would be the difference? That is a good question. When they get in they accumulate large staffs and start doing things. Then the subordinate officials need more people to answer the staff's questions. Most of the work in the

Defense Department is writing reports. I once made a recommendation about this situation to Congress. Shall I repeat that?

Senator **Proxmire**. Sure.

Admiral **Rickover**. How would I fix the problem? I would split up the Defense Department officials into three distinct groups. One-third would do the work. The other two-thirds would sit in offices with no secretaries or aides and would write letters in longhand to each other and get replies in longhand but never do anything more. [Laughter.]

If we did that—it sounds funny—we would do more to promote military efficiency than anything I know. Try it sometime.

Senator **Proxmire**. My time has expired. I will be back. Congressman Reuss.

Representative **Reuss**. Admiral Rickover, I heartily agreed with your statement a moment ago that one of the things wrong with this country is that there is too much power in the hands of people who don't know how to use it responsibly.

Admiral **Rickover**. Actually, they have no responsibility. The "responsibility" is so diffused that no one can ever be held responsible.

Representative **Reuss**. And that led to a colloquy between you and Senator Proxmire about campaign contributions. It is true, in my judgment, that possessors of great wealth can pour out money to political candidates and thus very substantially control what our Government does.

Admiral **Rickover**. "Who's bread I eat, his song I sing." That is an old English saying.

### POLITICAL CAMPAIGN CONTRIBUTIONS

Representative **Reuss**. That's proved true every day, and yet, as the Senator pointed out, the Supreme Court in the case of *Buckley* v. *Valeo* in 1976 held that it is unconstitutional to impose any realistic limit on what people may give to politicians, on the ground that such a limit would interfere with their freedom of speech.

I think that decision is just plain erroneous.

Admiral **Rickover**. Can't Congress legislate? You have the power to legislate anything you want.

Representative **Reuss**. The Supreme Court said——

Admiral **Rickover**. The Supreme Court is not over Congress. You can regulate the responsibility of the Supreme Court, too. You know, the Founding Fathers were pretty smart. They had experience with the British monarchy and they put provisions in the law which are available to you to solve these problems which you are now bemoaning. You can do it.

Representative **Reuss**. When some years ago the Supreme Court had held that a progressive income tax was unconstitutional, the Congress then passed a constitutional amendment to permit such a tax.

I now come to my point. I believe the Supreme Court erred in its decision because it did not take the opportunity to say, "Certainly there are limits of freedom of speech." Just as the State may constitutionally prevent somebody from shouting "Fire" in a crowded theater, so the State or the Congress can prevent unlimited, insensate campaign contributions. The Court did not do that. Hence, we are now saddled with that decision.

Would you agree that the remedy ought to be a constitutional amendment, which says that the Congress and the State may indeed impose reasonable limitations on the amount of money that may be spent in political campaigns?

Admiral **Rickover**. Absolutely. Otherwise, you are creating a plutocracy.

Representative **Reuss**. Would you agree that such a constitutional amendment makes a lot more sense, and is much more important, than the dozens of rather trivial constitutional amendments which are now lying around on the congressional docket?

Admiral **Rickover**. Well, sir, I am not familiar with the various amendments that are before the Congress, but in answer to your specific question about campaign funds, I certainly would limit them. In order to make the game fair for every citizen who seeks office—there should be no one more equal than anyone else in running for public office. I would put it that way.

Representative **Reuss**. And if I were to cause to be drafted such an amendment and introduced it, would you support it?

Admiral **Rickover**. Yes, sir, I would. This is a simple issue as far as I am concerned—if we believe in our system.

We have decided that a man should have the right to vote no matter what his education or knowledge is. We used to have many voting limitations, particularly in the early days of the Republic, such as educational qualifications and so on. Later Congress wisely decided that since each individual was equal before God he should be equal before the law and that therefore a poor man should have just as much right toward creating the law as the rich man. That is all I am saying. I am not making a profound statement here. I think it is pretty obvious and has been adopted in all democratic countries.

Representative **Reuss**. You have testified that in your judgment both this country and the Soviet Union are engaged in arms programs way beyond any rational need of either side of the controversy in terms of defense.

Admiral **Rickover**. I have, sir. That is right.

## POLAND

Representative **Reuss**. You also are aware of the critical situation today in Poland, where the Government of Poland has mercilessly repressed its own people, and where because Poland is a member of the Soviet bloc we, the United States, are now engaged in a heated up cold war with the Soviet Union. Wouldn't it be more conducive to world peace if the United States tomorrow tabled before the world, and particularly the Soviet Union, a proposal that both sides—both the United States and the Soviet Union—pull back on their arms expenditures and use some of the money thus saved on a nonideological basis for helping the tortured people of Poland to reorder their economy, to grow crops, to make their factories work, and thus quiet down the whole agony in Central Europe?

Admiral **Rickover**. I would like to break your question into two parts. One is the specific part on Poland and the other is about helping other countries. I do not think it is proper for me—although it is for Congress—to pick out a particular state for special treatment. But I do say I would not mind that some of the money we are spending on arms be used to help other worthy peoples. But that is a function of of Congress, regardless of what I may personally feel. Please do not forget, I was born in what is now Poland. I cannot favor one country or another. You have other witnesses coming here who are declared proponents of certain courses of action, but I am not. I am an officer of the U.S. Navy. That is up to our leadership—Government, the elected representatives, and the officials of Government—to decide. That is not a decision for me to make.

Representative **Reuss**. My last question would concern the——

Admiral **Rickover**. Have I answered your question?

Representative **Reuss**. Yes.

### INFLUENCE OF LARGE CORPORATIONS

My last question concerns the dilemma you pointed out. You proclaimed your belief in a private enterprise economic system, but at the same time you pointed out the abuse and overreaching in the arms industry by many of the leading arms-supplying corporations.

Admiral **Rickover**. Do you agree with me on that, sir?

Representative **Reuss**. I agree with both points, but that presents us with a dilemma, because I think you were saying that we really can't go on as we now are.

Admiral **Rickover**. We should require defense contractors to obey the law. That is all I am saying. I am not saying any more than that. I am not questioning where the money is spent, or which contractors are chosen. That is a separate matter. In some cases there are abuses concerning which contractors are chosen, but I am not addressing that point. I am addressing the point that once they take a contract they should honor it. That is all I am saying, sir.

Representative **Reuss**. What would you think of a sunset provision whereby the Government would say to the arms industry, "Look, you've got 10 years to shape up. If you don't, we're going to do what France is now doing, namely, nationalize the arms industry."

Admrial **Rickover**. There are no possible means I see under our system of government where you can go to the defense industry and tell them they have got 10 years to do this or do that. You cannot do that. I do not think it is legally possible, sir.

Representative **Reuss**. How would you approach it?

### BUILD SOME SHIPS IN GOVERNMENT SHIPYARDS

Admiral **Rickover**. I believe you have got to act unequivocally to nationalize them. I will tell you what this means. Take shipbuilding, with which I am quite familiar. I believe you will find it ultimately much cheaper overall to have a lot of shipbuilding work done in Government yards. I am not a proponent of doing things in Government facilities, but the issue has come to this point. Now it costs more to do work in Government shipyards. But why does it cost more? Because the shipyards—I am sticking to that one because I know a lot about it—the salaries Government shipyards pay is mandated by law. There are many other regulations to which Government shipyards must conform. These regulations are not binding on private industry. So the cost comparison is an unfair and an unrealistic one.

In my opinion, based on what I see industry doing, it will be just as efficient overall for the U.S. Government to build a ship in Government yards.

Representative **Reuss**. So you're saying don't wait 10 years?

Admiral **Rickover**. That is correct.

Representative **Reuss**. Get rid of the senseless regulations but have the Government——

Admiral **Rickover**. Every time I recommend building ships in Navy shipyards the Defense Department refuses to go along. They will not. They protect private industry because that is where the civilian superiors come from and that is where they are going back when they leave Government.

Representative **Reuss**. But your view is that the Nation would be better served if the public controlled its arms industry?

Admiral **Rickover**. I am not saying that total public ship construction is necessary. Basically, as I have testified, I believe in private industry—but without the present abuses and absentee management. What has happened in the arms industry is that we have permitted considerable abuse and I think some of that can be changed by law. One means—and this was recognized in World War II—was to do work in public yards. This would set a benchmark; what the work should actually cost. We no longer do this, so contractors all have gone overboard. Now perhaps in a roundabout way have I answered the gist of your question, sir?

Representative **Reuss**. You surely have. My time is up, but am I right in interpreting what you say as advocating a sort of TVA yardstick approach?

Admiral **Rickover**. That is right, sir.

Representative **Reuss**. In which the Government and various aspects of the arms industry would each have its own operation?

Admiral **Rickover**. Yes, sir. You can easily make a comparison. You know how much extra you have to pay Government employees because of Government rules and you could then measure the efficiency.

Now let me give you an example. In our largest submarine building yard, the former manager was there less than half the time. He was doing other business for the company—even going abroad to sell the company's products. In the next largest yard the president is also there only half the time. So shipbuilding is not their real business. Their job is to make money for the company. They don't care how the work goes. The Government pays for it regardless. There is little incentive. There is no real corporate responsibility by the manager or the conglomerate.

The president of one large shipbuilder told me all they wanted for their yard in building Navy ships was to make just the return the parent company makes from commerical work. He thought I was a fool. We went, as I mentioned, and checked his financial returns. They were making more profit on Navy business than needed to match the parent company's return on commercial business. Moreover, the shipbuilder lost money on the commercial work he was doing in the very same yard.

Now I am the only one who knows these facts and will come here and tell you frankly what they are.

Representative **Reuss**. Thank you.

Senator **Proxmire**. Congressman Richmond.

### SECRETARY OF DEFENSE

Representative **Richmond**. Thank you, Senator Proxmire.

Admiral Rickover, when the current Defense Secretary came before the Senate for confirmation about a year ago, I recall he indicated that it should not be very hard to cut defense expenses by $10 billion just by cutting out the obvious waste in the Department. I recall those words distinctly when he came before the committee.

How do you account for the fact that since he's been Defense Secretary he's taken an about-face on that remark and indicated that the Defense Department was being run so well that there was really nothing that could be cut through increased efficiency?

Admiral **Rickover**. I cannot answer that question. He has problems that I do not have. I think if I were made Secretary of Defense I could reduce the money spent. But he has other problems. He has the administration to deal with. He is their appointee. They want certain things done and they have programs. I will not say whether they are right or wrong. I am not in the position to judge. Furthermore, the Secretary of Defense really has so many duties, obligations, meetings, trips abroad, and so on, that I doubt he actually knows much about what is going on. No man could.

Representative **Richmond**. And he has a staff of a thousand people, a personal staff of a thousand people, which in itself is totally excessive and impossible to handle.

### DEPARTMENT OF DEFENSE

Admiral **Rickover**. Well, I said in the 1940's and I still believe it was wrong to set up the Defense Department. I was involved in this to some extent, toward the end of the war. I was against the concept because I saw that this behemoth would be mired in its own internal problems. I do not know why we have a Defense Department. I really do not know. I do not know what it does. Nobody knows.

### RECOMMENDATIONS MADE TO OMB

Representative **Richmond**. Admiral, you made a lot of recommendations to David Stockman on various economies in the Defense Department I believe.

Admiral **Rickover**. Yes, sir.

Representative **Richmond**. Have any of those been put into work at all?

Admiral **Rickover**. No, Sir.

Representative **Richmond**. Can you give us an idea of some of the recommendations you made?

Admiral **Rickover**. Yes. I have an appendix to my prepared statement which explains the gist of it. You have before you this thick document on my recommendations for improvement of the Defense Department. First I talk about the organization of the

Department. Then I mention excess organizational layering. I mention the large number of people staffing the offices at each level. I am just reading the titles. Here are some more examples: Stop the undue reliance of the military on management information systems and system analysis; reduce the number of flag officers. In other words, there are too many such as me in the damned place.

Eliminate wasteful practice of transferring military people from one location to another every 2 to 3 years. How can anyone learn a complex job in 2 to 3 years? What sort of Congress would we have if every Member changed every 2 years? How could you run this Government? Now the Congress is really simply in a way because you are not carrying out specific duties but general duties. But how can you run a technical organization the way the Defense Department operates? How could any technical corporation run with all its officials in a state of constant rotation—every 2 years?

So the question I raise is why the hell do we have so many officers? We have too many officers and we don't know what to do with them. So we assign them to shore duty, and they must do things to demonstrate they are activists—and so become known to their superiors. This helps for their promotion and assignment to the next duty.

Representative **Richmond**. Now getting back to my question, because I only have a couple minutes left, you made these recommendations to David Stockman. Have any of them actually been activated?

Admiral **Rickover**. No, Sir. I have never heard from him. This is what I call the "Say-Do." When you take the job, you make a lot of fine speeches and everybody applauds what you say you are going to do, and that is the end of it. You say it, and then you don't have to do anything after that. I call it "Say-Do."

### NUMBER OF SENIOR OFFICERS

Representative **Richmond**. Is it true we have now twice as many senior officers in the Armed Forces as we did in World War II?

Admiral **Rickover**. I believe that is correct.

Representative **Richmond**. It's a mind-boggling thought, isn't it?

Admiral **Rickover**. Well, you authorize the money for it. You Members know what you are doing, don't you? It's your fault. You are on a committee that is supposed to be knowledgeable. That means you don't do your job. You know, I am talking with brutal frankness.

Representative **Richmond**. Just to change the subject, Admiral Rickover——

Admiral **Rickover**. How do you like that, Senator Proxmire? You see, I got to him. [Laughter.]

Senator **Proxmire**. I think you and I agree, Admiral, that Congressman Richmond does his job. You're talking about the generality of people that disagree with Congressman Richmond.

Representative **Richmond**. I'm not a member of the Armed Services Committee.

Senator **Proxmire**. He agrees with you, I'm sure.

Representative **Richmond**. Of course, I do.

Admiral **Rickover**. I know that, sir.

Representative RICHMOND. And I believe our various congressional committees that have oversight over the Armed Forces probably could do a tighter job if they had the time. However, that's not my area.

### SHIPBUILDING AND STEEL INDUSTRIES

One thing that bothers me, Admiral, is in our entire defense buildup right now we are spending unprecedented amounts of money on defense this year—$222 billion, as you know is only the tip of the iceberg because we have so much more money in veterans pensions and God knows what.

The shipbuilding capacity of the United States, though, is down to the barest minimum, to a point where my understanding is that even in commercial ships we're building fewer or no ships at all in the commercial shipyards in the United States as against Japan and Korea where they are building hundreds of ships. Don't you think as a matter of defense readiness two industries in the United States should be modernized, namely our shipbuilding facilities and steelmaking facilities? How can you fight a war if you can't make modern steel and ships?

Admiral RICKOVER. The basic reason is that it is too expensive to build ships in this country. That is the basic reason. A man who has to build a ship for commercial purposes—and he has to pay out money he borrowed at high interest rates—has to go abroad to get his ships. That is why the Japanese are building so many ships.

Representative RICHMOND. And that's why the Koreans are beating the Japanese now?

Admiral RICKOVER. Yes, sir. It is too expensive.

Representative RICHMOND. What does that say to us as a matter of defense preparedness? We can be spending all these billions on armaments, but if we can't build modern steel and we can't build a ship, what kind of Armed Forces stability do we really have?

Admiral RICKOVER. The issue you are raising transcends the Defense Department. It involves all our industry. We have Government rules that require us to pay workers far more in benefits than is done in other countries. That's what causes it.

Representative RICHMOND. Do you think the Government should subsidize some of these payments in order to encourage modern shipbuilding in the United States?

### MISMANAGEMENT

Admiral RICKOVER. I do not believe that subsidies are going to solve this problem. You have to face the fact that we are paying people in industry much more than they get in other countries, with equivalent intellectual capability and standard of living. Therefore, we ought to find out why this is. One of the reasons is mismanagement.

I will be specific with the shipbuilding industry because I know something about that. The people in charge of it do not know much about shipbuilding. That is not why they are there. They are simply put in their jobs for their financial acumen on how to make a profit. I once testified and offended the shipbuilding industry very much. I said they would just as soon sell horse turds as ships. They didn't like it. That's the best I can say. What they want is to make money.

Representative **Richmond**. Well, I personally find it frightening that here we are building up every facet of our Armed Forces but yet the industrial base of the United States is eroding so we just don't have the backup materials to keep our Armed Forces going, and not only in time of war but in time of any minor international activity.

Admiral **Rickover**. You are talking about a general national malaise. You are not talking about this particular issue. And the reason we have gotten away with it so far is because we still have large amounts of natural resources that we can use up.

Representative **Richmond**. Right.

Admiral **Rickover**, And what will ultimately bring this situation to an end is the increasingly high cost of extricating raw materials from the ground. This is an event which is bound to happen. In fact it is already happening.

Representative **Richmond**. Thank you, Admiral. Your comments are certainly stimulating.

Admiral **Rickover**. I do not believe I have helped you very much. I can only give you the thoughts of one who has thought about the subject often; one who feels he has a deep obligation to tell Members of Congress what he actually believes. Whether you agree with me or not is your prerogative. You have other and more pressing problems than I have, and I understand that. I also am very much appreciative of the patience that you have demonstrated in listening to my diatribes.

### CIRCUMSTANCES SURROUNDING RETIREMENT

Senator **Proxmire**. Admiral, questions have been raised in the press about the circumstances surrounding you retirement. Will you give us the facts?

Admiral **Rickover**. I will, sir. On November 13, 1981, I met with the Secretary of Defense at his invitation; the Secretary of the Navy was there. He said nothing during this meeting. The Secretary of Defense told me that I would be replaced when my current tour expired. He offered me a position as Adviser to the President on Civilian Nuclear Matters.

I declined that offer but told him that if the President ever wanted my advice, I would be honored to give it, and that had applied throughout my entire career. In fact, some Presidents have asked—President Truman, President Carter, and President Eisenhower. But this President has never asked me.

I later informed the Secretary of the Navy that I would like to continue on active duty as a special Navy adviser, but still be available as needed to offer advice to other government officials. The Chief of Naval Operations proceeded to make arrangements for me to have an office and small staff at the Washington Navy Yard.

On January 25, 1982, the Secretary of the Navy informed me that he had decided not to recall me to active duty, but that I would have use of an office and certain administrative support for 3 to 6 months. In other words, he wanted me completely terminated in the Navy within 3 to 6 months.

Senator **Proxmire**. You would have the office for 3 to 6 months and that's it?

Admiral **Rickover**. That's it. I do not believe the decision to replace me was based on unsatisfactory performance.

## NAVAL NUCLEAR PROPULSION

The safety record of the naval nuclear propulsion program remains excellent—2,300 reactor years of operation without a reactor accident involving a nuclear propulsion plant.

Our nuclear-powered ships continue to be the most reliable yet hardest worked ships in the fleet.

Our latest nuclear-powered ships are superior in key propulsion attributes, such as ship silencing and endurance, to any ships in the world.

We know how to increase the speed of our submarines substantially if the Navy and Congress are willing to spend the money for a new class of submarines.

Despite an expanding nuclear fleet, the amount of radioactive waste and the total occupational radiation exposure is declining. Radiation exposure to people in the program has always been kept well below allowable Federal standards. It is lower than any other nuclear power program in the United States or, I believe, in the world.

Listen to this one: We have under development nuclear cores that will last the entire life of the ship. This will eliminate the expense, radioactive waste, occupational radiation exposure, and ship time out of service involved in refueling nuclear-powered ships.

## PERSONAL HEALTH

I continue to work an 11- to 12-hour day plus weekends.

The Navy medical staff has just certified that I am fit in all respects for continued active duty.

The Secretary of the Navy has said, "Well, I'm losing my marbles" or something of the sort. The Secretary of the Navy has said that I am being replaced for "actuarial" reasons.

Senator **Proxmire**. Say that again.

Admiral **Rickover**. Actuarial reasons. If all Government officials were replaced strictly on an actuarial basis, we would lose some of our most effective legislators and administrators because anybody over 69, the average lifespan of a U.S. male, should be replaced.

Throughout my naval career, I cannot recall one instance where one of my superiors, past or present, has ever told me I was not doing a good job, and that includes the present one. I cannot say the same with respect to a few contractors, some of whom have previously expressed their displeasure over my reporting them for potential fraud in connection with shipbuilding claims, and some of whom have spent years attempting unsuccessfully to get the Government to invest in their pet schemes which I have shown to be unsound technically. There are corporations that want to get large sums of Government money for research and development on their projects. They have come to me and I have said their projects are nonsense, so they don't like me.

I have no right to hold any position in Government, nor to remain on active duty. As a naval officer I serve at the discretion of the President, which is as it should be. I regret that I cannot continue to serve my country in a worthwhile capacity. On the other hand, I am most grateful and appreciative for being able to remain in public service as long as I have. And that is all I can say along that line.

### MEETING WITH PRESIDENT

Senator **Proxmire**. There was a story in the Washington Post which referred to your meeting last week with the President. According to the story, you were invited to a ceremony honoring you. Can you describe the ceremony and what happened at the meeting?

Admiral **Rickover**. No, sir. I think it absolutely improper to discuss any meeting I had with the President of the United States.

Senator **Proxmire**. I understand your request to be kept on active duty after your retirement—a request that has been granted to others—has been denied, and that the Navy won't even give you an office to work out of except maybe for the next 3 to 7 months. Is that correct?

Admiral **Rickover**. That is correct. "The Moor has done his duty and the Moor may go."

Senator **Proxmire**. I recall that several years ago, a former Tenneco lobbyist, the late Thomas Corcoran, is to have lobbyed extensively in the White House and in Congress to block your reappointment. Is that true?

Admiral **Rickover**. That is correct. He is dead now. I am sure God will treat him as he merits.

Senator **Proxmire**. Is it true that business interests have been trying to get you fired for many years because you opposed bailouts, pointed out fraudulent claims, and resisted deals that would not have been in the public interest?

Admiral **Rickover**. Let me answer this way. I think it would be quite a logical and profitable thing for them to do, and in business, what is profitable is "logical."

Senator **Proxmire**. Admiral, instead of a cermony honoring you, I get the feeling you were rather unceremoniously retired and that you have been treated rather shabbily. Am I wrong?

Admiral **Rickover**. I cannot comment. I said earlier, in my life in this country, I probably have been treated far better than I ever could possibly have hoped. Those making the decisions about me have their own reasons. They have never discussed their reasons with me. Isn't there some statement like "The heart has its own reasons?"—and I assume these people have hearts.

### SECRETARY OF DEFENSE

Senator **Proxmire**. Admiral, you have served under every Secretary of Defense that we have had since we created the Department of Defense, which you at the time opposed. Who was the best Secretary of Defense you have known and why?

Admiral **Rickover**. That is a hard question to answer because it depends on the conditions. During World War II—and I was here the whole time or most of the time—it was easy for the Secretary of War to run his job because money was limitless. He had to do the right things and everything he did was out in the open. But after the war people were put into office as Secretary of Defense, for example, for political reasons. The man put in charge during World War II was not for political reasons. He was chosen as being the best man and, as often has been the case, a good man from industry. At other times some politician was picked. When war comes it is important to have the right man—the best man.

Senator **Proxmire**. Well, your response then is——

Admiral **Rickover**. I have enjoyed working for most Secretaries.

Senator **Proxmire**. I'm just asking if anybody stood out in your mind as particularly competent and skillful and capable.

Admiral **Rickover**. No; there are those who have made reputations, as you know, but I cannot say who was best.

### ENGINEERING EXPERIENCE

Senator **Proxmire**. Now looking back at your career and recognizing that it is not at an end—I really feel that very strongly—but entering a new phase, would you change any major decision that you have made?

Admiral **Rickover**. No, I would not. I am an engineer and before I make any decision, any nuclear engineering decision, I go into all aspects. Furthermore, I believe I have a unique characteristic—I can visualize machines operating right in my mind. I have had 60 years of engineering experience, as I mentioned earlier—probably more than anybody in this country has ever had. I can see in my mind how machines, or any piece of equipment, operate. I have had experience all through World War II. I was responsible for the design, installation, procurement, and operation of all electrical equipment in the U.S. Navy during World War II. I do not think there has ever been anyone in the U.S. Navy who has had as much engineering experience as I have had. So that is one of the reasons I am able to do my job.

Senator **Proxmire**. Well, I can't think of any major decision that you have made that I would change, but I wanted you to reconsider in view of the fact there's been such enormous changes in technology and changes, of course, in the strategy that we have to adopt to defend our country.

Admiral **Rickover**. I have changed things all the time. I mentioned earlier that it was my idea to figure out how to make a reactor core last for the life of the ship. I am designing that for the Government. That was my idea.

### EXCESSIVE ROTATION IN JOBS

Senator **Proxmire**. Admiral, is it possible in today's military structure for another Admiral Rickover to come up through the ranks?

Admiral **Rickover**. Well, what if Jesus Christ were to come back?

Senator **Proxmire**. I didn't hear that?

Admiral **Rickover**. I think you're asking rather the wrong question. Certainly there are people who can do that.

Senator **Proxmire**. I think there are people. I am just wondering if the system would permit a man who is——

Admiral **Rickover**. The system would prevent it. You cannot do that because the most sacred thing about the Navy is the officer must change duties every 2 to 4 years. That is absolutely sacred and you know there's a reason for that. When an officer gets up for promotion, the more duties he has had, the more likely he is to be promoted. For example, in interviewing senior officers, captains, I find that in the 20-year time some of them had 20 different duties. Now what can one learn about a job in a year? So, in my opinion, the whole system of rotation in the Defense Department is giving each officer an equal chance to fill every billet so he can be considered for promotion. The system does pick out the best officers. It can't. What if the job that one is doing—a Senator representing a State for example would change every year or 2 years? How would it work? It takes you at least a year to find out what the job is.

Senator **Proxmire**. As you say, in this job you could make a case for it and a lot of opponents would like to have a new Congress every 2 years, but our job is simpler. It is different. But that is something that is puzzled me and bothered me a great deal too, that we move people around so much that they cannot really become thoroughly competent and professional in some of these very complex areas.

Admiral **Rickover**. I think Congress must and should step into this area of frequent rotation. It is inefficient. It is very hard on the people, it wastes much money; and nobody really runs the place. This is something you can do in legislation and I strongly urge you to do that.

For example, what could I have done in a 2-year tour of duty in my job? I could have done little.

### LIGHT GAS-COOLED NUCLEAR REACTOR

Senator **Proxmire**. Let me ask you a specific question now. What can you tell us about the efforts of Westinghouse and General Atomics to sell to the Government small light gas cooled nuclear reactors and nuclear fuel, and why have you resisted those efforts?

Admiral **Rickover**. Because it is nonsense. I will give you a very simple answer that any ordinary person can understand. When you generate energy, there is temperature and heat. You have got to get rid of some heat. That is a law of thermodynamics. Let's consider a large and a small item of the same metal. The small one will destroy itself quickly if it is subjected to large amounts of energy that cannot be dissipated. The temperatures are too high. That is why there is a limit to what one can do in engineering.

The concept of small, light, gas-cooled nuclear reactors has been floating around for many years. It is a concept that you can learn in a high school physics class. The real object of the companies advocating it is to get research and development funds which they will use in their laboratories to develop what they want.

Do you think, if it were possible for me to develop a better reactor, with the 300 experienced nuclear engineers I have working with me, that we could not figure that out? We know what this is all about. It is just sheer nonsense. I am sure once it is tried and after spending a few billion dollars, that will be the end of it.

### DEPARTMENT OF DEFENSE

Senator **Proxmire**. Admiral, the Office of Management and Budget has received great publicity for its efforts to balance the budget and they have tried hard and they have cut programs very sharply. What's that organization doing, if anything, about increasing the efficiency of the Defense Department, and what is the Defense Department and the Navy doing?

Admiral **Rickover**. To increase the efficiency of the Defense Department, you first must abolish it. I am not joking about this at all.

It is too large, as I mentioned earlier in my testimony. You should get back to having an Army, a Navy, and an Air Force. You should get back to that. The Defense Department is far too large for any human being to handle. You have heard about the Bible, haven't you?

Senator **Proxmire.** Yes, sir.

Admiral **Rickover.** Have you ever read it?

Senator **Proxmire.** Yes, sir.

Admiral **Rickover.** Fine. I am glad. I have read it, too. In fact, I read it in the original Hebrew when I was young.

Senator **Proxmire.** I did not.

Admiral **Rickover.** No, I did not think you did. You read it in English.

Senator **Proxmire.** Yes, sir.

Admiral **Rickover.** Well, you got a translation. I am not sure it is entirely correct. At any rate, in the Bible, you may remember the time when the Jews escaped from Egypt. What was the first thing Moses did? He divided them into 12 tribes so he could manage them. It was impossible to manage them as a single horde. It is very simple. That is an old lesson and here you have read the Bible and you appear not to have learned that lesson. You should have paid more attention to the Old Testament. You probably paid more attention to the New Testament. [Laughter.]

Senator **Proxmire.** Admiral, my questions should not reflect my ignorance or lack of it.

Admiral, I have heard some have criticized you for not developing small, light, cheap reactors for naval ships. Would you comment on this and will you also comment on the criticism that you have helped discourage development of a more advanced civilian nuclear technology?

### NUCLEAR TECHNOLOGY

Admiral **Rickover.** Well, as to the more advanced civilian technology—I don't know how I may have discouraged it. There are ideas such as gas-cooled reactors, but they are impracticable for combatant ships. You can develop these reactors, but the question is, do they do you any good? Are they effective and safe? I have been in charge of a civilian nuclear power program too. I have been working for some time on a breeder reactor for civilian water reactors. I could have done what you say. In fact, many years ago, I investigated gas-cooled reactors, liquid metal reactors, and organic reactors for naval use. I tried one of them out. I actually had a liquid metal reactor in a submarine that operated at sea for 2 years. At the end of that time it was obvious that it was not as good as a water-cooled reactor.

So when anyone says I just have the single idea of a water-cooled reactor this is not true. My object is to ascertain the truth in technology for the application in question and then to follow it through.

### SHIPBUILDING FRAUD CASES

Senator **Proxmire.** Admiral, in your appendix you document your charge that the Justice Department was not effective in pursuing cases of reported fraud in the shipbuilding industry. Would you elaborate on that point? Are all the statements I hear about eliminating fraud as fraudulent as the fraud itself?

Admiral **Rickover**. The Justice Department tends to focus its efforts on finding the so-called smoking gun. You know what that is, of course. That is, the forged document, fraudulent documents, and the like.

Today, with sophisticated claims lawyers, incriminating evidence of that sort is rarely left. Also, government attorneys assigned to investigate shipbuilding claims are frequently assigned additional cases; this precludes their giving full time and attention to these large complex cases.

The total lack of action with existing false claims serves to encourage even more such claims, and undermines the administration's stated objectives of reducing unnecessary expenditures. The executive branch simply will do nothing about it.

It is, again, the "Say-Do." They will not follow it. I have tried and tried again with the Department of Justice. The Justice Department just won't do much. I cannot control the Justice Department.

Senator **Proxmire**. And this has been through a number of administrations?

Admiral **Rickover**. That is correct, sir.

Senator **Proxmire**. It is not this administration but past administrations, Republican and Democrat?

Admiral **Rickover**. That is right, sir.

### NUCLEAR REACTOR SAFETY

Senator **Proxmire**. In view of the experience in Three Mile Island and the other accidents and mishaps, do you believe that civilian nuclear reactors can be operated safely?

Admiral **Rickover**. Absolutely, sir.

Senator **Proxmire**. What's wrong with the way the civilian nuclear industry is managed now? Why are there accidents?

Admiral **Rickover**. Supervision, and I can give you a perfect example of that. Most of the civilian industry is manned by people who were trained in the naval program and yet they run into these problems.

Senator **Proxmire**. Trained in the naval program?

Admiral **Rickover**. Yes, sir. We have trained about 54,000 people. Many of them have gotten jobs in the civilian nuclear industry. The senior watchstander at Three Mile Island had been in a nuclear ship. But the difference is that in the Navy we truly supervise. We require proper watchstanding. We check on everything. I get reports all the time, every week, from every one of our ships.

In the civilian nuclear industry, there are no similar reports to one central authority. There is no equivalent supervision. One of the serious thing wrong at Three Mile Island was the lack of supervision and carelessness in operation.

There is a very simple reason for this. I can tell you the story because I have dealt with the private sector in the utility industry. For example, the Shippingport reactor was the first civilian commercial reactor in the world. I designed, built, and have been operating it since 1957 and we have never had a reactor accident. It is still operating. Now this reactor has operated for 25 years and we never had any problem. Do you want to know why that is?

Senator **Proxmire**. Yes.

Admiral **Rickover**. Because I have my representative present in that control room every minute that reactor is operating. He sees to it that the people of the Duquesne Light Co., who operate it, do their jobs properly. He watches them. They are not allowed to talk with each other except on official business. If he sees one of the operators talking to another and it is not on business, he tells them to stop. If they do not stop, he can shut down the plant. We have shut it down. I maintain control of my reactors.

In the civilian sector, the people running utilities are lawyers and bankers who are not the proper people to supervise operations of reactor plants. It is very simple. There is nothing basically wrong with those plants.

### GOVERNMENT ROLE IN CIVILIAN NUCLEAR POWER

Senator **Proxmire**. What do you think the appropriate role for Government is in the civilian nuclear power?

Admiral **Rickover**. I do not believe the Government should spend money fostering nuclear power. Government should have people checking on their operation. I do not believe the Government should subsidize the development of commercial nuclear power. They have done enough now.

Senator **Proxmire**. Admiral, civilian nuclear energy has nearly come to a standstill in this country. Will it ever become a viable source of energy in the future? In our State, for example, 30 percent of the electricity is provided by nuclear power and yet I'm told they don't have any plans at all, any prospects, of building any further nuclear facilities.

### NEED FOR NUCLEAR ENERGY

Admiral **Rickover**. You are asking me two different questions. I will try to answer them. One, I think that ultimately we will need nuclear power because we are exhausting our nonrenewable energy resources; that is, coal and oil. I think this exhaustion will go far more rapidly than we believe. The cost is already going up. I believe that nuclear power for commercial purposes may show itself to be more economic, but that is not the only line of reasoning to consider. We must also take into account the potential damage a major release of radioactivity could cause.

### RADIOACTIVITY PROBLEM

I will be philosophical. Until about 2 billion years ago it was impossible for there to be any life on Earth. That is, there was so much heat and radiation on Earth that there could be no life—fish or any other form of life. Gradually, about 2 billion years ago, the amount of heat and radiation on this planet, and probably in the entire system, became reduced. This made it possible for some form of life to begin. It started in the seas, I understand. The amount of radiation has gradually decreased, because all radiation has a half-life; which means ultimately there could be no radiation.

Now when we use nuclear weapons or nuclear power we are creating something which nature has been eliminating. That is the philosophical aspect, and it pertains whether it is radiation from nuclear weapons, nuclear power, use of radiation for medical or industrial purposes. Of course, some radiation is not bad because it doesn't last long, or has little effect on the surroundings. We live with a certain amount of natural radiation all the time. But every time you produce radiation, you produce something that has a certain half-life, which in some cases is billions of years.

There are, of course, many other things mankind is doing which, in the broadest sense, are having an adverse impact, such as using up scarce resources. I think the human race is ultimately going to wreck itself. It is important that we control these forces and try to eliminate them.

In this broad philosophical sense, I do not believe that nuclear power is worth the present benefits since it creates radiation. You might ask why do I design nuclear-powered ships? That is because it is a necessary evil. I would sink them all. Have I given you an answer to your question?

Senator **Proxmire**. You have certainly given me a surprising answer. I didn't expect it and it is very logical.

Admiral **Rickover**. Why wouldn't you expect it?

Senator **Proxmire**. Well, I hadn't felt that somebody who has been as close to nuclear power as you have and who has been so expert in it and advanced it so greatly would point out that, as you say, it destroys life.

Admiral **Rickover**. I am not proud——

Senator **Proxmire**. Without eliminating it or reducing it many years ago, we couldn't have had life on Earth. It's fascinating.

Admiral **Rickover**. I am proud of the part I have played in it. I did it because it was necessary for the safety of our country. That is why I am such a great exponent of stopping this whole nonsense of war. Unfortunately, attempts to outlaw war have always failed. One lesson of history is when a war erupts every nation will ultimately use whatever weapon is available. That is a lesson learned time and again. Therefore, we must expect, if another war—a serious war—were to break out, we will use nuclear energy in some form. That is due to the imperfection of human beings.

### PROSPECT OF NUCLEAR WAR

Senator **Proxmire**. What do you think is the prospect, then, of nuclear war?

Admiral **Rickover**. I think we will probably destroy ourselves. So what difference will it make? Some new species will arise eventually; it might be wiser than we are. We think we are wise because we have——

Senator **Proxmire**. With that knowledge, it would seem to me that we could control, limit, and reduce nuclear weapons. Everybody loses.

Admiral **Rickover**. From a long-range standpoint—I am talking about humanity—the most important thing we could do at present is to have an international meeting where first we outlaw nuclear weapons. Eventually we could outlaw nuclear reactors too.

Senator **Proxmire**. Do you think that's realistic in a world with the Soviet Union?

Admiral **Rickover**. I don't know. You are asking me to think as a person who probably knows more about this issue and has thought more about it than anybody else. I think I have a reasonable mind and I can think these things through. I understand what humanity is all about and the part human beings play on this Earth. I do not believe in divine intercession. I think we are making our own bed and we have to lie on it. We can go to church every Sunday and pray, but the Lord has many demands made on him from many other worlds and in the eyes of the Lord we are not the most important thing in the universe.

### ARMS LIMITATIONS

Senator **Proxmire**. So you think if we have the commitment, we can limit and reduce our arms?

Admiral **Rickover**. Yes, sir. I remember the 1921 disarmament conference. That is the one Charles Evans Hughes helped organize. The United States called that conference and had significant results. An arms race was underway. England, France, and Italy were building many ships and so were we. The conference resulted in the limitation of arms. The treaty expired in 1935.

It would be the finest thing in the world for the President of the United States to initiate another disarmament conference. It can be done. They did it then. The agreement lasted for a period of 15 years. It expired in 1935. By that time Hitler had come to power in Germany and there was no choice of continuing disarmament. Had it not been for him, probably disarmament would have gone on and decreased the amount of armaments even more.

I believe this is a propitious time, since military expenses are eating up so much money. These costs are completely unproductive, and use so much of the people's taxes. This would be a fine thing for the President to do, and I urge you, in your capacity as a Senator, to try to do as I suggest. Make me a member. I will do something. Put me in charge of it and I will get you some results.

### NAVAL ACADEMY

Senator **Proxmire**. I'm sure you would and I'll do my best to help.

Admiral, one of your major contributions has been in obtaining highly qualified officers to serve in the Navy's nuclear power program, and I think some of the interviews that you have conducted—at least as they have been reported—have been extremely colorful, some people think even cruel, but extraordinarily effective. You have had a particular interest in improving the U.S. Naval Academy. How do you view this situation today and is it getting better?

Admiral **Rickover**. Today's Navy is a highly technical calling. All of the Navy's leaders, both in the nuclear and nonnuclear field need solid technical knowledge to deal adequately with sophisticated equipment and to properly lead the people in today's ships and in the shore establishment. My concern is that the Naval Academy may not be fully supporting this need.

During the past few weeks I interviewed over 250 midshipmen from the Academy who will graduate this June. I have interviewed more than 5,000 Naval Academy midshipmen personally over the past 20 years. Each of them had previously been interviewed by three experienced engineers separately, with each interview lasting about one-half hour. Where there were questions of the individual's ability or to make sure we were not being unfair, sometimes they were interviewed by as many as six engineers. This is one of the most important things I did. That applies not only to selecting personnel for the Navy but also for my own organization. I select only those I consider to be academically competent, dedicated, willing to work hard, and who have potential for growth.

Based on these interviews over many years, and particularly from recent ones, I believe the Naval Academy is not fully preparing the midshipmen for duty for a highly technical Navy. I view this as a waste of a national resource. If the Academy does not push midshipmen to excel academically, then the country is not getting its money's worth.

I see case after case of midshipmen with good academic records for their first 3 years getting poor grades during their final year. These are clear cases where the midshipmen are "coasting" and not doing their best. This, despite the fact that I have advised the Superintendent of the Academy of the results of the interviews each year and recommended that he oversee the midshipmen's studies. There has been some attempt in recent years to effect improvment, but it was not wholehearted. Athletics is, in effect, a most important part of the Naval Academy system.

Senator **Proxmire**. You say athletics is the most important part of the Naval Academy?

Admiral **Rickover**. Perhaps I'm exaggerating, but they urge the midshipmen to go out for athletics. I am not an athlete, but I exercise daily so I can perform my work properly. I do not see what good it does the Navy to have a student become an expert football player. Once they are in a ship, who knows or cares? If that is the case, why do all this? The only point for wrestling that I know of is to learn how to wrestle with girls. I see no other purpose.

I find cases of talented midshipmen pursuing courses of instruction or taking majors that are interesting to them or in which they can get high marks without effort, but are not academically demanding. I see the results of this in interviews where these midshipmen cannot logically answer fundamental engineering questions. Moreover, a number of officer students with this poor background, who have been accepted for the Navy's nuclear program, have not been able to get through Nuclear Power School because they wasted their time at the Naval Academy. Now they call personnel material, which is a bad word to use in describing human beings. The material who start at the Academy is good material, but it is ruined at the Academy. There is no impulse to work hard and to study hard. There are many distractions. They are still young men, and they are not forced to study. Yet they are being paid by the Government.

I talked the other day to the Superintendent of the Naval Academy. I believe he intends to reinstate the old system where the authorities will supervise study. In a midshipman's day at the Academy he has about 4 hours where he can study and that is the most important time of his day and yet that is one time that he is not supervised. I am talking as an engineer, from a logical standpoint. If these are the resources we have, how do we make the best use of them? It is a very simple matter. Do you understand what I am saying, sir?

Senator **Proxmire**. Yes.

Admiral **Rickover**. And that is what they should be studying. I have tried for many years but I have had little impact. I am considered a queer character, and one must not believe a queer character. Only people such as Congressmen believe queer characters, but not regular Navy officers. You understand me, do you not, sir?

Senator **Proxmire**. I think you're having a lot more effect than you think.

Admiral **Rickover**. The Academy leadership has not been demanding the excellence that these young men should exhibit. Each year we lose the opportunity to significantly improve the professional knowledge of Academy graduates because responsible Academy officials do not know or appreciate that many midshipmen are wasting their time.

For example, in talking with the Superintendents I have told them things about the Academy they did not know. I have recently discussed these concerns with the new Superintendent of the Naval Academy. He is probing into these problems to see what he can find, and to remedy them.

### HOW DID YOU SURVIVE SO LONG?

Senator **Proxmire**. Admiral, a final question. As a legacy to other Government officials who would like to achieve your record of honesty and efficiency, and the elimination of waste and fraud, but who are frustrated and defeated by superiors who want to cover up such abuses, how did you do it? How did you survive so long? What's your secret?

Admiral **Rickover**. I never have tried to survive. Whenever I got a job to do, I knew I was getting paid for it. I also knew I was a citizen of the United States. I knew that I had come to the most marvelous country in the world, and I was always devoted to the concept of trying to do something in return for all the benefits given me by this country. That is very simple. I was paid for it, too; very well paid. So there was no sacrifice on my part.

Senator **Proxmire**. It's more than that. You survived and others have not. Other people have blown the whistle. Other people have called attention to abuse. Other people have protested coverups and they are gone.

Admiral **Rickover**. I have never made any particular attempt to survive. I have done as I liked. I have done my job, come hell or high water, any job I had, as soon as I got out to the Naval Academy.

At the Naval Academy I was influenced by my background. I had to work over 70 hours a week, outside of my school hours, the entire time I went to high school, so I fully appreciated what getting an education meant. I had saved my tips as a Western Union messenger, $350, enough to pay for going to a Naval Academy preparatory school. I quit the prep school after 2 weeks when I saw it was wasting the pupils' time and went out and lived in a garret near the waterfront. I studied by myself. I quickly realized if I kept on attending that damned school I would never pass the entrance examination. So I started studying all by myself and I just barely passed the examination.

Everything in my life has been a sort of coincidence. Certainly I was never chosen as the best looking Naval officer. I have never aspired to that. Mr. Foster says Congress has helped me, and it has, but I have never done anything in my career, on board ship or here, that has been different than I thought I should. I have been asked to retire and I refused to do it. It is up to the Navy to fire me or to do whatever they wish.

Senator **Proxmire**. I want to thank you from the bottom of my heart. I have been here 25 years. I have heard many witnesses and I have been in many hearings, and this is, by far, the most fascinating, interesting hearing that I have had an opportunity to attend. You have given us a great lesson today—many lessons today.

Admiral **Rickover**. You mean that you are a Senator and I have been able to teach you something? Why, you are the most august people in our country. As Senators you are supposed to know more than anyone else.

Senator **Proxmire**. We're supposed to, but we don't . You do.

Admiral **Rickover**. I used that word advisedly. I do have a closing statement to make.

Senator **Proxmire**. You have a final statement?

### FINAL STATEMENT

Admiral **Rickover**. I want you to know what a pleasure it has been to deal with you over the many years. You and I have been involved in many issues together—cost accounting standards, renegotiation board, shipbuilding claims, and other procurement-related matters. I will always remember that when the House first passed the bill requiring the establishment of cost accounting standards and it came to your committee for consideration. You chaired those hearings. There must have been at least 50 or more defense contractor groups strongly objecting to the idea that standards of this sort should be required. The Department of Defense was against it. Even the General Accounting Office testified in opposition. Just imagine that—the watchdog for Government spending, yet they opposed it. I believe there was one accountant from New York who testified in support of the standards, one out of thousands of accountants.

Despite this overwhelming opposition from the defense contractor lobbyists and from the accounting profession, you insisted that the General Accounting Office study the matter. Two years later, the Comptroller General issued his report affirming the need for these standards. You were instrumental in enacting legislation that set up the Cost Accounting Standards Board. This was a courageous political act by you despite overwhelming odds. You have done much to promote efficiency in government. I respect you very much, sir, and deeply appreciate all you have done for me and, more important, for the U.S. taxpayer. When you run for office again I would appreciate it if you use my statement because it comes from the heart.

Senator **Proxmire**. You can be sure I will, Admiral. I'll need to.

Admiral **Rickover**. And I will move to Wisconsin. I will vote for you, if you will pay my moving expenses, sir.

Senator **Proxmire**. Admiral, let me just say that I think anybody who's been at this hearing and who's watched you and looked at you—and I have heard you for the last 25 years—I think you have never been more vigorous, forceful, intelligent, sharp, and quick. You're right, the actuarial tables are something we should not rely on in retiring. We need you urgently, desperately, and I think it's a great mistake and a sad day for the country.

Admiral **Rickover**. What are you going to do about it?

Senator **Proxmire**. I can't do anything.

Admiral **Rickover**. You're a sovereign Senator, you know. Senators are supposed to run our country.

Senator **Proxmire**. Well, if you do move to Wisconsin, don't run against me. You would win.

Admiral, it was said earlier that there were giants in those days, referring to the Franklin Roosevelt era. Congressman Reuss said that. Some day people will look back at our era and say there were giants in those days, and they will be referring to you.

Admiral **Rickover**. They may, but the realm of silence is deep enough beyond the grave.

Senator **Proxmire**. True. Once again, you have given us the honest truth in the most provocative way. We want you back, Admiral. We want you back soon. I know you won't go quietly into the night and fade away. You're a wonder. You're an inspiration.

Admiral **Rickover**. My final statement is that a live dog is worth more than a dead premier.

Senator **Proxmire**. You are certainly a "live dog," Admiral. We have additional questions we would like to ask you to answer for the record, and we also invite you to extend your remarks with additional material for the record. And would you introduce the gentleman who is with you?

Admiral **Rickover**. This is Mr. Foster. He is the financial expert in my organization. You would be surprised at his ability, experience, and dedication. He is one of the most important people in the outfit because without him we cannot function, any more than if you do not appropriate money for us. You know all the fine things I say are well meant. But Senators such as you are also essential, sir.

Senator **Proxmire**. Now you will be retiring Sunday. Saturday is your last day?

Admiral **Rickover**. Yes, sir.

Senator **Proxmire**. And you will be working Saturday, as you always have on Saturdays?

Admiral **Rickover**. Of course, sir.

Senator **Proxmire**. And then Sunday you will be——

Admiral **Rickover**. I probably will be working Sunday too because my work will not have been completed.

Senator **Proxmire**. Admiral, thank you so much. I have some written questions I will submit to you and I invite you to submit for the record whatever additional materials you deem relevant to the issues discussed today.

The committee stands adjourned.

[Whereupon, at 11:45 a.m., the committee adjourned, subject to the call of the Chair.]

[The following written questions and answers were subsequently supplied for the record:]

## RESPONSE OF ADM. H. G. RICKOVER TO ADDITIONAL WRITTEN QUESTIONS POSED BY SENATOR PROXMIRE

*Question 1.* Based on your long experience in the operation and design of submarines, has the Navy and the Defense Department properly recognized the value of nuclear submarines as part of our naval force?

Answer. In the area of nuclear powered ballistic missile submarines the answer is yes. There seems to be wide-spread agreement that the nuclear powered ballistic missile submarine is the most secure and effective strategic deterrent we have.

In the area of nuclear powered attack submarines, the answer is no. While a number of these ships have been built and there is an on-going construction program, it has been a continuing problem to get recognition of the importance of these ships. This has been the case despite the many lessons of submarine warfare in World Wars I and II.

Germany started World War II with only 57 submarines in service. They only had 57 because they were not allowed to build submarines until 1935. Had they had more time they would have had many more. During the war they produced something like 1,000 submarines and they came close to winning. It took 20 percent of the entire Allied war effort in World War II to defeat the German submarine threat.

In 1917 and 1918, the worst years of the submarine war in World War I, the average number of German U-boats at sea was 47. These 47 sank about 1 million tons of shipping per month in the early months of 1917. In April 1918, 10 to 15 U-boats sank 155 ships, totaling more than 500,000 tons that were attempting to supply the British Isles. In World War I, the German submarines sank 5,700 Allied ships, totaling more than 11 million tons.

The German submarines in World War I could operate only to a maximum depth of 250 feet, and they could only make 8 knots submerged, and only for about one hour. They could only remain at sea for 30 days. Further, that 30 days included the time to reach the patrol area and return from it, so they actually had only about 15 days on station. The nuclear attack submarine, armed with torpedos and cruise missiles, and having high speed and unlimited endurance, is a far more capable and deadly weapon system than anything that has ever been experienced in naval warfare.

In my opinion, I do not think that many in the Department of Defense or the Navy, particularly those with the power to control money, appreciate the value or significance of the submarine—either as a weapon we may have to face, or as a weapon within our own arsenal. The top leaders of the Department of Defense and the Navy have tended to think largely in terms of air warfare. The aerospace industry has a tremendous influence on how defense dollars are spent. It would be interesting for you to find out how much money is spent in the Navy in each of the three basic areas of air, surface, and submarine, including research and development. I am not implying that naval air is not important, but I do say that the division of money leans too heavily in that direction.

There are other clear examples of how nuclear attack submarines have been generally given lower priority. There was of course the initial opposition to the *Nautilus* in the Navy which was overcome only by Congress. Repeatedly Congress has had to step in and take action in opposition to the Defense Department.

There has been reluctance in the Navy to recognize the value of these ships and what they can do. When the *Los Angeles* class design was in its early stages I argued that it should be designed to serve as an escort for surface ships. This caused concern among the surface warfare officers who were adamantly opposed to the idea that submarines and not surface ships be used to escort surface ships. To get Navy support, I had to drop all mention of the use of this ship in an escort role. Of course, after the ships were in operation the Fleet Commanders realized their importance in protecting the high value surface ships.

I do not believe there is as yet a true appreciation of the capability of these ships to devastate the seas in a future war. They can operate under the polar ice, where no other forces can realistically reach them. This is a facet which is hard to get people in the Navy to realize because there is no past wartime experience with it, and it does not fit into the conventional naval strategy.

I have testified about this situation before but what I said has had little effect. Unfortunately, the Soviets are not so reluctant to understand the value of nuclear submarines. They have clearly made these ships the centerpiece of their Navy.

*Question 2.* With your departure as Director of the Naval Nuclear Propulsion Program would you provide the Committee with a description of the Program insofar as its activities and responsibilities?

Answer. See paper entitled "A Description of the Naval Nuclear Propulsion Program," which follows.

# A DESCRIPTION OF THE
# NAVAL NUCLEAR PROPULSION PROGRAM

JANUARY 31, 1982

A JOINT PROGRAM OF THE
DEPARTMENT OF THE NAVY
AND THE
DEPARTMENT OF ENERGY

## PURPOSE

The purpose of this document is to describe the basic organization and functions of the Naval Nuclear Propulsion Program, a joint program of the Department of the Navy and the Department of Energy. This is a large, complex and integrated program involving many functions and activities in the two agencies; accordingly, this description is intended to provide only the most significant facets of the program. Similarly, it covers generic topics rather than attempting to address the details included in various directives, manuals, and specifications, or other established practices currently in effect. It is the intent of the description to summarize the organization and its functions as they currently exist, having evolved to their present status over a period of years since the program's origin in the late 1940's.

## BACKGROUND

The Naval Nuclear Propulsion Program is over 30 years old. The theoretical possibility of nuclear propulsion first developed when nuclear fission was discovered in the late 1930's. However, a gulf of undeveloped technology separated a physics experiment in a laboratory from an operating nuclear propulsion plant. In June, 1946, the Navy sent five officers and three civilians to Oak Ridge, Tennessee, to study the potential of using nuclear energy to power ships. The consensus of the group was that the technical difficulties could be overcome, and nuclear power could be used as a means for propelling Navy ships.

At the time, there was only limited experience with nuclear reactors. The United States had three reactors for producing nuclear material for atomic weapons, and five small research reactors. There was no readily available knowledge on operating a reactor that would produce power in a usable form. Developing a power reactor would require new corrosion resistant metals which could sustain prolonged periods of intense radiation, thick shielding to protect personnel from radiation, and new components which would operate safely and reliably.

These problems were even more difficult for submarine application since the reactor and its associated steam plant had to fit within the confines of the comparatively small hull, and be able to withstand extreme battle shock incident to the operation of combatant ships. The propulsion plant had to be operated and maintained at sea by Naval officers and enlisted men who, although specially trained, were not physicists or scientists. Although application of nuclear power to submarines was a major challenge, it was generally recognized that success would transform submarine warfare. Submerged operation of submarines of the World War II era was limited by battery power and was measured in hours to a few days. Because nuclear fission produced heat without consuming oxygen, a true submarine was possible, one which could remain submerged and steam at sustained high speed for long periods.

Progress toward nuclear propulsion was limited until Congress determined how atomic energy developments were to be administered in the U.S. Congress resolved that issue by establishing the Atomic Energy Commission and assigning it responsibilities for nuclear development on January 1, 1947. Within the Atomic Energy Commission, Admiral H. G. Rickover (then Captain) was assigned responsibilities for naval nuclear power beginning in 1948. In 1949, he became the head of the Naval Reactors Branch of the Commission. This was the beginning of the joint effort between the Navy and the Commission, an arrangement which continued after the Commission was replaced by the Energy Research and Development Administration and subsequently the Department of Energy. The following sections briefly trace the history and important aspects of the Naval Nuclear Propulsion Program as it has evolved into its current form. Appendix 1 is a listing of official published sources of information on the Naval Nuclear Propulsion Program.

## Developing Technology

Three reactor approaches were initially considered for naval nuclear propulsion. A study of a gas-cooled reactor showed that this type was not suitable for naval ship propulsion. The liquid metal cooled reactor and pressurized water reactor approaches were found promising for development and carried through to full scale prototype plants, and thereafter to shipboard application. A pressurized water reactor was used for the submarine NAUTILUS and a liquid metal reactor was used for the submarine SEAWOLF.

Congress authorized funds for the Atomic Energy Commission to proceed in 1950 with construction of the land prototype of the NAUTILUS propulsion plant. Three years later, the prototype began operation. For the first time, a reactor produced energy in significant quantities and with the reliability needed to drive power machinery. The propulsion plant that was later installed in the submarine NAUTILUS was the same design as the one in the prototype. The NAUTILUS prototype reactor is still being used today to test new developments and train men for the Navy's nuclear fleet.

Of the many technical problems encountered in developing the pressurized water concept, one of the most difficult was finding a metal to clad the uranium fuel--one which would not corrode excessively in the presence of high coolant temperatures, would not absorb neutrons needed to maintain a chain reaction, and would not lose its structural integrity under prolonged exposure to intense radiation. Zirconium looked promising but was expensive and available only in small quantities at the time. The Naval Nuclear Propulsion Program proceeded to develop the necessary manufacturing technology to produce large quantities of zirconium alloys at reasonable prices. Zirconium alloys have since been widely adopted in the civilian power industry both here and abroad.

For the SEAWOLF liquid metal reactor, even more difficult problems presented themselves. Although the SEAWOLF operated successfully for two years, leaks in the steam generators and the potentially dangerous consequences of sodium should it mix with water in a confined submarine were serious drawbacks. Because of these problems and other technical considerations, the liquid metal reactor approach was discontinued for naval application and the reactor plant in the SEAWOLF was replaced with a pressurized water reactor in 1960.

Because of the advantages of virtually unlimited propulsion endurance, the program also pursued development of pressurized water nuclear propulsion plants for surface warships. Congress authorized the world's first nuclear powered surface warship, the USS LONG BEACH, in the fiscal year 1957 shipbuilding program. The ship completed sea trials in July 1961 and joined the fleet in September of that year. In 1956 a nuclear propulsion prototype was begun for an aircraft carrier. The prototype first operated at full power in September 1959. One year earlier the keel for the aircraft carrier ENTERPRISE was laid and she was commissioned in November 1961. During her sea trials ENTERPRISE developed more horsepower than any ship in history up to that time.

## Civilian Nuclear Power Development

In the early 1950's, President Eisenhower decided that the United States should be the first nation to have a full scale atomic power plant designed solely for the purpose of producing electrical power. Because of the successful use of the pressurized water concept in naval applications, the Atomic Energy Commission assigned the project to the Naval Nuclear Propulsion Program and Congress provided the funds. The Shippingport Atomic Power Station was built and reached full power on December 23, 1957, meeting the objective set for it.

The Shippingport plant pioneered the use of uranium dioxide fuel; use of this fuel system and the development of zirconium alloys represent two of the major achievements of the program which are now in widespread use in the civilian power industry. The Shippingport program also developed the basic technology for reactor plant components, refueling concepts, analytical tools and standards which were later applied to commercial power reactors here and abroad.

The Shippingport reactor plant continues in operation with a thorium/uranium-233 fueled core to demonstrate the feasibility of breeding in a light water reactor. Breeding is a process in which the reactor produces more fissionable fuel than is consumed in producing power. Successful development of the technology for breeding, being demonstrated by operation of the Shippingport Light Water Breeder Reactor core, will make this nation's substantial thorium reserves available for production of electrical power. This represents a potential energy resource greater than the known U.S. fossil fuel reserves.

The Light Water Breeder Reactor core operation is scheduled to be completed in 1982 after which the core will be removed and destructively analyzed to confirm its breeding performance.

## Technological Advances

The program continues to devote considerable resources to improving the technology for naval nuclear propulsion. This has included development of a number of pressurized water reactors of various power ratings to meet naval requirements for both submarines and major surface ships. The reactors range from the smallest used to power the 372 ton deep submergence research vehicle, NR-1, to the largest used to power the 95,000 ton NIMITZ class carriers. In recent years, the program has developed new reactor designs for the high speed LOS ANGELES class attack submarines and the OHIO class of Trident ballistic missile submarines.

To minimize downtime for maintenance and to ensure that a high percentage of the nuclear powered fleet is ready for immediate deployment in an emergency, the program has emphasized increasing the lifetime of naval reactor cores. This lifetime has been extended from a two year life for the first NAUTILUS core to a 10 - 15 year life for ships delivered in the last decade. Efforts are underway to develop cores that will last the life of a ship.

The Naval Nuclear Propulsion Program has also investigated other reactor approaches and continues to monitor developments in reactor design, but no type has been shown to be as suitable for naval application as the pressurized water reactor.

## Performance and Training

In January, 1955, the NAUTILUS, the world's first nuclear propelled ship, went to sea. In 1958, NAUTILUS reached the North Pole. In 1960, the two-reactor TRITON completed a submerged voyage around the world, surfacing only once to transfer a man who needed medical assistance. At the end of that year, the GEORGE WASHINGTON, the first Polaris Fleet Ballistic Missile (FBM) submarine, began its first patrol and initiated the U.S. sea-based strategic deterrent. In 1981, the 2000th patrol was completed by the submarines of this deterrent force. In 1964, a nuclear powered surface ship task force, consisting of the aircraft carrier ENTERPRISE, the cruiser LONG BEACH, and the frigate BAINBRIDGE, completed a voyage around the world independent of logistic support.

With over 40 percent of the U.S. Navy's major combatants currently powered by nuclear power plants, the flexibility and high speed endurance of these ships have become an essential, integral element in U.S. naval operations. Nuclear powered submarines make long deployments in all areas of the world undetected. Ballistic missile submarines provide a secure strategic force and attack submarines are capable of anti-surface ship and anti-submarine warfare. The nuclear powered aircraft carriers and cruisers provide an unmatched naval strike force that can operate for extended periods in remote regions, such as the Indian Ocean, without concern for fuel supply. These forces can move rapidly to other trouble areas if required in the national interest.

The Naval Nuclear Propulsion Program has over 2300 reactor years of cumulative reactor operation, and nuclear powered ships have steamed over 49 million miles. Since the inception of the program, there has never been an accident involving a naval reactor nor a release of radioactivity to the environment which has adversely affected public health or safety. This testifies to the reliability and effectiveness of the nuclear powered fleet.

An important factor in the technical accomplishments of the Naval Nuclear Propulsion Program has been the emphasis on continuity, experience and technical expertise in personnel. The headquarters staff currently consists of several hundred engineers and scientists with over 2400 cumulative years of experience in naval nuclear propulsion. The most senior 100 people have an average of about 15 years of experience and the 20 division heads have an average of about 20 years of experience, having served in many technical areas including field positions. This same emphasis on personnel competence and technical qualification exists in the other areas of the program both within the operating forces and in the activities that perform research, design, development, construction, maintenance, overhaul and refueling of nuclear powered ships. For example, since the beginning of the program, over 8,400 officers and 44,500 enlisted technicians have gone through an intensive program that consists of six months instruction in theoretical knowledge at the Navy's Nuclear Power School, six months practical experience operating one of the nine naval prototype nuclear reactors and their propulsion plants, and an additional period to become qualified to operate the nuclear propulsion plant of the ship to which they have been assigned.

Design and Engineering

Because a warship must be able to perform its mission and return under combat conditions, the nuclear propulsion plant therefore must be engineered to survive battle damage and severe shock; to operate reliably and safely in close proximity to the crew; and to be repaired at sea by the crew if necessary. Standards for materials and systems are rigorous and only premium products with a proven pedigree are used in the reactor to minimize maintenance and take maximum advantage of long core lives.

Building and operating effective naval nuclear propulsion plants involves many engineering and design considerations. The following are important tenets of the program's engineering philosophy:

> Avoid committing ships and crews to highly developmental and untried systems and concepts.
>
> Ensure adequate redundancy in design so that the plant can accommodate, without damage to ship or crew, equipment or system failures that inevitably will occur.
>
> Minimize the need for operator action to accommodate expected transients. If the plant is inherently stable, the operator is better able to respond to unusual transients.
>
> Simplify system design so as to be able to rely primarily on direct operator control rather than on automatic control.
>
> Select only materials proven by experience for the type of application intended and insofar as practicable, those that provide the best margin for error in procurement, fabrication, and maintenance.
>
> Require suppliers to conduct extensive accelerated life testing of critical reactor and systems components to ensure design adequacy prior to operational use.
>
> Test new reactor designs by use of a land-based prototype of the same design as the shipboard plant. Prototype plants can be subjected to the potential transients a shipboard plant will experience, so problems can be identified and resolved prior to operation of the shipboard plant.
>
> Train operators on actual operating reactors at the prototypes. Simulators are not an acceptable training device for naval operators.
>
> Confirm reactor and equipment design through extensive analyses, full scale mockups, and tests.
>
> Use specially trained inspectors and extensive inspections during manufacture; accept only equipment that meets specification requirements.
>
> Concentrate on designing, building and operating the plants so as to prevent accidents, not just cope with accidents that could occur.

## Radiation and the Environment

A major accomplishment of the Naval Nuclear Propulsion Program is in minimizing occupational radiation exposure to personnel involved in the supervision, operation, maintenance, overhaul and refueling of nuclear propulsion plants. Further efforts in this area are continuing. In 1980, the total occupational radiation exposure to personnel operating ships and to the employees in the shipyards which repair and overhaul them was about one-sixth the amount in the peak year 1966, even though the number of nuclear powered ships has nearly doubled. The average annual occupational exposure of shipyard workers in 1980 was 0.15 rem compared to the Federal annual occupational limit of five rem. The average annual exposure nuclear ship operators received from serving on ships in 1980 was 0.070 rem, compared to about 0.175 rem per year for the general public from background and medical sources.

Strict precautions have been taken to safeguard the environment. For example, one of the most environmentally significant forms of radioactivity is gamma radioactivity, which involves emission of highly penetrating gamma rays. On the high seas, the total amount of gamma radioactivity in liquids discharged per year for the last ten years from all U.S. nuclear powered ships is less than 0.4 curies--less than the amount of natural radioactivity contained in a cube of sea water 100 meters on a side. Within twelve miles of land, the total gamma radioactivity discharged by all U.S. ships and facilities in one year is less than .002 curies. This amount is 1,000 times less than the average U.S. commercial nuclear power plant discharges annually even though the radioactive discharges of the average commercial nuclear power plant meet all permissible Nuclear Regulatory Commission (NRC) limits.

Shipyards, bases and support facilities which perform radiological work for the Navy conduct environmental monitoring, and all such Navy monitoring and other independent surveys by the Environmental Protection Agency show no significant effect on the background radioactivity of the environment.

The results of program efforts to control radiation exposure and protect the environment have been annually reported to Congress and the public.

## Numbers of Ships and Reactors

Currently the U. S. Navy has 135 operating nuclear powered ships - 121 submarines, one deep submergence research vehicle, and 13 surface ships. Of the 121 submarines in operation, 88 are attack submarines and 33 are ballistic missile submarines. Of the 13 surface ships, four are aircraft carriers and nine are guided missile cruisers. There are 32 additional ships currently authorized or under construction - 21 LOS ANGELES class attack submarines, nine TRIDENT ballistic missile submarines, and one NIMITZ class aircraft carrier.

There are 163 naval reactors currently in operation in the Naval Nuclear Propulsion Program, with 154 in ships and nine in prototype nuclear propulsion plants. This compares to 75 commercial reactors currently licensed to operate in the U.S.

## FACILITIES AND ORGANIZATION

The Naval Nuclear Propulsion Program encompasses an extensive and highly integrated network of facilities and activities devoted to work on naval nuclear propulsion plants. The scope of program work includes research, development, design, procurement, specification, construction, inspection, installation, certification, testing, overhaul, refueling, operational practices and procedures, maintenance, supply support, and ultimate disposition of naval nuclear propulsion plants, including components thereof, and any special maintenance and servicing facilities related thereto. Because the program work involves highly sensitive information and requires close control and review by management and senior personnel, much of the work is done at facilities exclusively devoted to the program.

The Director of the Naval Nuclear Propulsion Program oversees and manages all aspects of the program. These functions are discharged through the headquarters and field office organizations which are under the direct control of the Director, and which administer and control all aspects of naval nuclear propulsion and other assigned nuclear work.

The major facilities involved in the Naval Nuclear Propulsion Program include the following:

Bettis Atomic Power Laboratory (Bettis) and Knolls Atomic Power Laboratory (Knolls), two facilities which are owned by the Department of Energy and operated by private contractors.

Three naval reactor land-based prototype sites and the Shippingport Atomic Power Station.

Two private and six Navy shipyards. The private shipyards perform ship and propulsion plant design work, and build nuclear powered ships. The Navy shipyards and one private shipyard currently overhaul and/or refuel nuclear powered ships.

Two private contractor organizations which are exclusively devoted to procuring reactor plant and related equipment for the program, as well as providing technical and logistics support for installed reactor plant equipment to the operating fleet. In addition, the Navy Ships Parts Control Center (SPCC) provides repair parts support, warehousing facilities and data processing service in support of reactor plant equipment.

Over 800 private firms which build and provide services on the equipment (including the nuclear cores) installed in the nuclear propulsion plants aboard nuclear powered ships. Field offices are maintained at major vendors.

In addition to these facilities, the program exercises technical control over or provides technical input to other activities involved in naval nuclear propulsion. These include the Navy Nuclear Power School in Orlando, Florida, which receives technical direction and oversight from headquarters; Navy nuclear support and supply facilities which, using technical requirements promulgated by headquarters, service and provide operational support to the nuclear propulsion plants of ships; and the Expended Core Facility, which is used to conduct technical examinations of spent fuel. These are further discussed in the following sections. In addition, the program maintains close liaison with all related activities in the Navy and DOE, and also draws upon other government facilities to support program work, such as the DOE's spent nuclear fuel reprocessing facility and the DOE's Advanced Test Reactor, both at the Idaho National Engineering Laboratory, and the Navy's Ship Research and Development Center in Carderock, Maryland.

The ability to perform nuclear propulsion work has been built up over more than 30 years. Substantial effort and funds have gone into developing the laboratories, prototype plants, shipyards, specialized facilities, such as the Expended Core Facility, and vendor plants producing the entire spectrum of nuclear components. These facilities are a national industrial asset of the highest technical quality and capability. The personnel who man these facilities represent an extraordinary pool of talented personnel, highly trained and experienced in meeting the exacting technical and quality control requirements necessary to produce and maintain a nuclear propulsion plant. This commitment of personnel and facilities is necessary for the continued successful application of nuclear propulsion to Navy ships.

The next sections briefly describe the key elements of the program.

## Headquarters

The Naval Nuclear Propulsion Program headquarters organization employs both civilians and naval officers, jointly assigned to the Department of Energy and the Department of the Navy.

The headquarters organization is the central authority for all aspects of the program. Significant technical and administrative decisions are made by the headquarters professional staff with input from other segments of the program. In addition, the headquarters organization maintains close contact with all activities involved in naval nuclear work, including regulating many aspects of the work and controlling the interface between program activities and other government agencies. The engineering staff at headquarters has a common technical and engineering background that includes post graduate level courses in nuclear and mechanical engineering provided by the Bettis Atomic Power Laboratory.

The headquarters organization is divided into technical divisions and project offices. Each technical division has a major technical area of expertise related to naval nuclear propulsion, and is headed by a senior technical manager with many years of engineering experience in the program. Each project office controls a total project and is responsible for ensuring coordination among the different technical divisions conducting work on that project. A senior technical manager with many years of program experience heads each project office.

The technical divisions and project offices are supported by a separate headquarters group which administers program logistics, financial, budget, and procurement functions. In addition, other headquarters groups provide oversight for Navy nuclear propulsion training activities, nuclear safeguards, security, public and foreign affairs, congressional matters and other aspects of program work.

Reporting to the Director are a number of program field offices which oversee all aspects of the work and ensure that the policies, decisions and requirements of the headquarters organization are properly implemented and complied with. The field offices are responsible solely to the Director and are devoted exclusively to the Naval Nuclear Propulsion Program. The head of each field office is a senior representative with broad experience in the program including in most cases experience at headquarters. The staffs of the field offices include other senior civilian representatives, naval officers and professional personnel with special experience and qualifications in the program.

In addition to directing all aspects of the program at the laboratories, shipyards, training activities, procurement and support operations and field offices, the headquarters organization deals directly with other Navy, DOD and DOE organizations and with other Federal and State agencies on matters related to or affecting the program. Examples include the Department of State, the Nuclear Regulatory Commission, the Environmental Protection Agency, and the Office of Personnel Management. In similar fashion, the headquarters organization also coordinates the interface between program activities (such as the field offices and shipyards) and Federal or State agencies and private companies on matters related to or affecting the program.

## DOE Laboratories

The majority of the research and development work done on naval reactors is performed at two contractor operated facilities owned by the Department of Energy (DOE) and dedicated solely to the Naval Nuclear Propulsion Program. No other work is done at these facilities for other government or private programs. The Bettis Atomic Power Laboratory is operated by the Westinghouse Electric Corporation and the Knolls Atomic Power Laboratory is operated by the General Electric Company.

A program field office is located at each laboratory site, and is exclusively devoted to program work; the field office carries out such functions as budgeting, contracting, administrative control, etc. Communications with the Navy and the Department of Energy are conducted through the headquarters organization to allow the Director to carry out his responsibilities in controlling the activities of the laboratories.

The basic mission of the laboratories is development of improved naval nuclear propulsion plants and reactor cores in a wide range of power ratings to meet the military requirements of the Navy. As part of their mission, they operate the naval prototype reactors for the DOE. The laboratories also provide extensive technical support for the nuclear powered fleet to assure continuing safe and reliable operation of naval nuclear propulsion plants. Although the laboratories are predominantly funded by the DOE, they also receive Navy funds. This integrated approach to research and development is an advantage of the joint program concept where the DOE funds the development of the reactor plant and nuclear fuel, and the Navy funds other propulsion plant items and special naval features for the nuclear propulsion plant.

The highly trained and experienced personnel at the laboratories use state-of-the-art scientific computers and modern test facilities to design and analyze reactor and reactor plant equipment, evaluate the results of operational tests, conduct and analyze component tests, prepare operational and casualty procedures used for shipboard and prototype reactors, and perform other work related to naval nuclear propulsion. Headquarters approves the methods and procedures used to conduct this work.

Each laboratory maintains a small staff of resident engineers at the shipyards to provide technical direction, support and liaison between the shipyard and the laboratory for those aspects of design, ship construction, overhaul and refueling work involving the reactor plant.

## Prototypes and Shippingport

The Naval Nuclear Propulsion Program operates a total of nine prototype reactors in eight prototype propulsion plants at three DOE sites: the Naval Reactors Facility at the Idaho National Engineering Laboratory, Idaho; the Kenneth A. Kesselring Site at West Milton, New York; and the Windsor Site at Windsor, Connecticut. These prototypes are operated to test the performance of reactor and reactor plant components, systems and concepts. This process confirms that the equipment is properly designed and can be reliably operated in a fleet application. In addition, this process provides valuable information on the long term service of reactor and reactor plant equipment. The prototypes are also used to train Navy operators as discussed in a later section.

Program field offices are maintained at each site to provide surveillance and review of prototype operations and conduct other program functions. Staffs of laboratory engineers and other support personnel are stationed at each site to control prototype operation and facilitate use of the prototypes by the laboratories for test and evaluation purposes and training.

The Light Water Breeder Reactor Core is currently being operated in the Shippingport Atomic Power Station to demonstrate the feasibility of breeding in a light water reactor. This plant is monitored by a field office which ensures the operation of the facility is conducted in accordance with the standards and procedures established by headquarters.

## Shipyards

Naval and private shipyards accomplish four major functions with respect to nuclear powered ships: (1) design; (2) construction; (3) overhaul, maintenance, refueling and decommissioning; and (4) engineering and logistics support.

The shipyards perform their work on naval nuclear propulsion plants using specifications, procedures and drawings which have been prepared by the laboratories or a lead design shipyard and approved by headquarters. Deviations from these requirements must be approved by headquarters. Resident engineers from the program laboratories are also present to provide technical coordination and direction, as appropriate, on any issues involving reactor work. Close control of all aspects of shipyard work is maintained by the program through a number of means, including detailed review of the technical requirements and procedures, periodic headquarters audits, control over the requirements for personnel qualifications and certification of those qualifications, authorization for use and handling of radioactive material, regular oversight and monitoring by the local field office, and periodic oversight, auditing and evaluation by a team of senior headquarters personnel.

In all shipyards engaged in naval nuclear work, a nuclear quality control program is established separate from the quality control program for non-nuclear work. The nuclear quality control organization is independent of the organizations which actually perform the production work.

The following sections describe the nature of the work at the two types of shipyards, private and Navy (public):

### Private Shipyards

The two private shipyards which perform program work, Electric Boat Division of General Dynamics, Incorporated, and the Newport News Shipbuilding and Dry Dock Company of Tenneco, Incorporated, conduct design work on nuclear powered ships. These shipyards develop the nuclear propulsion plant design compatible with the reactor plant designed by the Naval Nuclear Propulsion Program laboratories. This process requires the oversight and concurrence of the laboratories to ensure consistency between the reactor plant and overall nuclear propulsion plant design. The completed nuclear propulsion plant design and any subsequent changes thereto are reviewed and approved by headquarters.

The two private shipyards also build nuclear powered ships. Electric Boat Division currently builds LOS ANGELES class attack submarines and the OHIO class TRIDENT submarines, and Newport News Shipbuilding and Dry Dock Company builds LOS ANGELES class submarines and the NIMITZ class nuclear powered aircraft carriers. In addition, Newport News Shipbuilding and Dry Dock Company overhauls and refuels commissioned nuclear powered ships; Electric Boat Division has also performed this function in the past.

Both private shipyards also provide various engineering and logistics support functions in support of operating naval nuclear propulsion plants. These functions include analyses of propulsion plant performance, design of refueling equipment, preparation of ship alteration documentation, preparation of repair parts provisioning, and procurement of parts and materials.

A third private shipyard, the Ingalls Shipbuilding Division of Litton, has discontinued performing work on naval nuclear powered ships and the field office oversight of this facility is scheduled to cease in the near future.

## Naval Shipyards

Six Naval shipyards currently overhaul, refuel or support shipboard nuclear propulsion plants, including the accomplishment of major repairs when needed. The Naval shipyards are at Charleston, SC, Mare Island, CA, Norfolk, VA, Pearl Harbor, HI, Portsmouth, NH, and Puget Sound, WA. The shipyards perform this work in accordance with detailed technical requirements and procedures developed for the work in a manner similar to that for the construction effort. In addition, the shipyards provide supply system and technical logistics support including procurement, inspection, repair, storage, control and evaluation of reactor plant components, material and support equipment.

Naval shipyards have a standard organization for performing naval nuclear work which was originally established and approved by program headquarters. It involves all shipyard departments, two of which -- Nuclear Engineering, and Radiological Controls -- are solely dedicated to nuclear work. These two departments are headed by senior civilian technical managers. Other naval shipyard departments involved in nuclear work, such as Production, Planning, Quality Assurance, Supply, and Public Works, each have assigned a senior civilian manager who is responsible for all aspects of the nuclear work performed by his department. These managers work for their respective department heads but have direct access to the Shipyard Commander for any nuclear matters. The private shipyards have similar organizations.

## Training Activities

Training of Navy operators in the Naval Nuclear Propulsion Program can be divided into three specific areas: 1) Nuclear Power School; (2) Prototypes; and (3) Ships.

The six month classroom training phase provided at Nuclear Power School in Orlando, Florida is developed, reviewed, audited and modified by the headquarters organization. Officer personnel to be trained as well as those who perform the training are interviewed and selected by headquarters. A DOE laboratory provides on-site technical support at the school through a full time technical representative. The Commanding Officer of the Nuclear Power School reports to the Director for all technical matters.

The six month training phase at the three DOE-owned land-based prototype reactor sites trains nuclear operators directly on prototype propulsion plants. All students must qualify on a prototype reactor plant prior to being sent to ships in the fleet. The curriculum, requirements, and qualification practices and standards for this training are controlled by headquarters.

Navy personnel reporting to ships after prototype training must qualify on the individual propulsion plant watch station in the specific ship to which they are assigned. After qualification, continued engineering training is conducted which includes review of technical material and performance of casualty drills. Requalification of personnel is required periodically and if acceptable performance is not maintained. Shipboard training is monitored by headquarters and operating personnel are audited by senior operating force, headquarters and field office personnel to ensure proficiency.

## Material Procurement, Supply and Support Operations

In addition to the laboratories, the program has two prime contractors which are directly involved in the engineering, procurement and support of most of the reactor plant components which are installed in shipboard and prototype reactor plants. These contractors are the Plant Apparatus Division (PAD) of the Westinghouse Electric Corporation and the Machinery Apparatus Operation (MAO) of the General Electric Company. Both perform program work exclusively. These contractors prepare bid packages and technical specifications, evaluate bids, award contracts subject to government approval, ensure equipment is fabricated to the proper technical requirements, and provide other technical, procurement and operational support functions involving reactor plant equipment. A program field office is located at each contractor site and closely monitors and reviews the contractors' work from a technical, administrative and financial standpoint.

The program also has field representatives at selected major suppliers throughout the country. These representatives ensure compliance with procedures, specifications, and standards. The field representatives are used in those facilities where the nature of the work requires direct monitoring in addition to that normally provided by the Defense Contract Administration Services.

The Navy Ships Parts Control Center (SPCC), Mechanicsburg, Pennsylvania, budgets, procures and controls stocks of reactor plant repair parts and materials for support of ships, prototypes, and other program activities. SPCC also performs ship repair part allowance and outfitting functions, provides logistics data processing service and operates storage facilities for nuclear equipment, materials and documents. The program controls SPCC naval nuclear work through a formal working agreement, and directs and oversees this work through the program headquarters organization and a field office maintained on-site at SPCC.

Other Navy and Department of Defense activities also provide logistics and administrative support for program work. These include the Naval Sea Systems Command and field offices, naval shipyards, the Defense Logistics Agency (including control and stock points), the Defense Contract Administration Services, the Defense Contract Auditing Agency, the Naval Supply Systems Command and its supply centers, and various supply assistance organizations.

## FUNCTIONS

This section sets forth the major functions carried out under the Director of the Naval Nuclear Propulsion Program. The Director exercises control in each area through the headquarters organization and field offices. For the purpose of discussion, these functions can be divided into the following areas:

> Research, design, development, and specification related to all current and projected uses of naval nuclear propulsion.
>
> Nuclear propulsion aspects of ship construction, overhaul and refueling, which includes all work on new and commissioned nuclear powered ships at Navy or private shipyard facilities.
>
> Nuclear safety and radiological control, which is intended to ensure that the health and safety of operators, workers and the general public are maintained at all times during nuclear or radiological work involving naval nuclear propulsion.
>
> Material procurement, quality assurance and logistics support, which involves ensuring that components, parts, materials, and technical documents needed to support ship construction, overhaul, refueling and operation are procured to the proper engineering specifications and are available in time to support program need dates.
>
> Selection and assignment of personnel, which encompasses activities related to ensuring properly qualified personnel enter the program and have technical qualifications for assignment to naval nuclear propulsion jobs commensurate with their demonstrated capabilities.
>
> Training and qualification of personnel, which involves activities associated with instructing and qualifying supervisors, workers, senior officers and other personnel involved in the supervision, operation, and maintenance of naval nuclear propulsion plants.
>
> Safeguards, security, intelligence, and public and foreign matters involving or having a potential impact on naval nuclear propulsion.
>
> General program oversight, coordination, review and administrative control of all aspects of the program to ensure the overall adequacy of and responsiveness to program needs and requirements.

The following paragraphs describe in more detail the functions carried out in each area mentioned above. In some cases, the descriptions of program functions are provided in general terms; more detailed descriptions are contained in manuals, instructions, procedures, standards, drawings, specifications and other program documentation and practice.

## Research, Design, Development and Specification

In the areas of research, design, development and specification, the program performs the following functions:

> Conducts all research and development related to the current and future application of nuclear propulsion for ships of the U. S. Navy.
>
> Designs and develops all components, equipment, systems, and related parts of the nuclear reactor and its primary plant, including associated biological shielding and servicing equipment for all nuclear powered ships of the U. S. Navy. Also designs and develops all components, equipment, systems and related parts for the entire propulsion plant of all ships and craft which are the first of their class, and for all naval nuclear propulsion plant prototypes. In carrying out these functions, the program develops and maintains engineering standards, specifications, and requirements, as well as operational and casualty procedures and supporting safety analyses. The program assists other Navy activities in overall design of new classes of nuclear powered ships to help integrate the nuclear propulsion plant design with the entire ship design.
>
> Designs, develops, fabricates and operates prototype reactors and other test facilities and mockups for the purpose of conducting research and development work as described above.
>
> Inspects reactor plant components and radioactive equipment including reactor cores removed from service in shipboard or prototype reactor plants to ensure maximum information is gained which can then be fed back into the research and design process. The program determines which radioactive equipment is to be reused, refurbished or disposed of when no longer needed. This includes operation and control of government facilities to accomplish inspection and refurbishment, or, where preferable, use of contractor facilities.
>
> Concurs in and participates in, where appropriate, any other research, development and design work done on other nonreactor plant equipment, systems, equipment arrangements, modifications and concepts for nuclear powered ships where such items may have an effect on the reactor plant or personnel radiation exposure.
>
> Performs research, design and development concerning the civilian Water Cooled Breeder effort. This effort involves developing technology for significantly improving nuclear fuel resource utilization by water cooled nuclear reactors used for electrical power generation.

## Construction, Refueling and Overhaul

In the areas of construction, refueling and overhaul, the program performs the following functions:

> Prepares specifications for building, assembling, overhauling, refueling, servicing and testing reactor plants and the equipment

which comprises those plants. This also includes development and enforcement of standards and procedures for safe lifting and handling of all nuclear components including new and irradiated nuclear fuel.

Oversees nuclear propulsion plant construction, overhaul, refueling, servicing, and testing. This includes such actions as approving the detailed reactor plant test procedures, refueling work procedures, and the overall sequencing of tests involving nuclear propulsion plants, including all critical reactor operation during construction and subsequent ship overhauls and refuelings.

For ships under construction, provides supervision and direction of nuclear propulsion plant testing during sea trials. The Director is supported by a team of experienced headquarters technical personnel which he selects to assist in this effort.

Develops, approves, and controls all changes to naval reactor plants and nuclear support facilities.

Establishes core lifetimes for each core design and concurs in Navy schedules for overhauling or refueling nuclear powered ships.

Maintains technical and administrative representatives at each shipyard where nuclear work is performed. These representatives report to the Director, and are responsible for monitoring shipyard performance and ensuring reactor plant safety during all work. To accomplish this work, field personnel have direct access to all shipyard records pertaining to nuclear work and testing, and to senior officers of the ships undergoing refueling or overhaul, to the Shipyard Commander or General Manager, and other senior shipyard personnel.

Ensures that the proper organizational structure exists within each shipyard to properly support work on naval nuclear propulsion plants.

Establishes the technical requirements for the qualification and certification of shipyard personnel who direct the refueling and testing of naval nuclear propulsion plants, and ensures that the training of personnel who perform this work is acceptable.

Conducts detailed audits and inspections of all aspects of the work on and testing of naval nuclear propulsion plants.

Reviews and concurs in all contracts and contract modifications for overhaul, refueling and construction of nuclear powered ships.

## Nuclear Safety and Radiological Control

In the area of nuclear safety and radiological control, the program, through the headquarters and field office organization, performs the following functions:

Establishes and implements nuclear safety requirements for the Naval Nuclear Propulsion Program, including all shipboard and land based reactors, the Expended Core Facility at the Naval Reactors Facility, the Bettis and Knolls Atomic Power Laboratories and all other program facilities. This is a statutory function of the Atomic Energy Act.

Establishes, implements and enforces all requirements, standards and regulations related to the control of radiation and radioactivity associated with naval nuclear propulsion plants, prototypes, and program nuclear work at all program nuclear facilities in order to protect the environment and the safety and health of workers, operators and the general public. At Navy and private facilities, responsibility for radioactivity associated with radiography, medical services or the calibration of testing or measuring instruments is exercised by other agencies. Program activities include:

(1) Prescribing design requirements, standards, procedures and control requirements for all naval nuclear propulsion radiological work.

(2) Establishing all program radioactive material shipment requirements including approval of container designs and shipping procedures to ensure compliance with federal regulations.

(3) Conducting research and development in various areas of radiological controls in order to improve the performance of radiological control work, minimize radiation exposure and minimize the generation of radioactive waste.

(4) Providing initial authorization, and either extension or revocation of subsequent periodic authorizations, for shipyards, tenders and bases to handle and ship radioactive materials associated with naval nuclear propulsion plants.

(5) Conducting audits and other reviews necessary to ensure compliance with all program radiological control requirements in nuclear powered ships, supporting shipyards, tenders, bases, prototypes and laboratories.

(6) Implementing and controlling a radiation health program to protect program personnel in accordance with applicable federal standards.

(7) Preparing and implementing emergency procedures for response to a radiological accident or nuclear reactor accident for reactors and nuclear facilities under the cognizance of the program.

(8) Interfacing directly with other federal agencies and the States as necessary regarding all radiological matters and associated environmental aspects of the program.

Conducts specific examinations of prototype and shipboard reactors and their personnel prior to the initial criticality of a newly installed core and, for prototypes, also periodically after such criticality. These examinations are performed by experienced headquarters personnel and cover all matters related to ensuring that the operational personnel can safely operate the reactor and propulsion plant (including placing the reactor in a safe condition if abnormal conditions should arise). The examination also ensures that the material condition of the propulsion plant, as well as related administrative documents, are satisfactory.

Although the activities of the program are not subject to licensing by the Nuclear Regulatory Commission, the Director obtains review and comments from the Nuclear Regulatory Commission and Advisory Committee on Reactor Safeguards on all new shipboard and prototype reactor plant designs and other pertinent nuclear safety matters related to program work as considered appropriate by the Director.

## Material Procurement, Quality Assurance and Logistics Support

In the area of material procurement, quality assurance, and logistics support, the program performs the following functions:

Procures, stocks and supports components, equipment, cores, systems and related parts and support materials of the nuclear reactor and its primary plant, including major associated servicing equipment, for all nuclear powered ships of the U. S. Navy, as well as program prototypes; also procures all equipment in the entire propulsion plant of all ships and craft which are the first of their class, and procures all prototype equipment. Such procurement and support functions include identifying what the procurement and stocking needs are, preparing the technical and quality control specifications, identifying and obtaining approval of the necessary funds, conducting procurement planning, placing and administering the orders, monitoring progress of the orders, evaluating the quality assurance system as discussed below, determining acceptability for use, and shipping, delivering and storing the equipment. For construction, overhaul and refueling, the Ships Parts Control Center, shipyards, and several Defense Logistics Agency activities also procure materials not provided by other program activities. All such materials are procured to specifications and procedures issued by headquarters.

Ensures that all nuclear equipment and materials and reactor plants procured for use in the naval nuclear propulsion program meet the high standards needed for shipboard or prototype service. This includes:

(1) Maintaining a strict quality assurance system for ensuring compliance with specifications;

(2) Monitoring fabrication and other work to ensure the high standards are met;

(3) Exercising technical control of quality control assistance provided by the Defense Contract Administration Services (DCAS), as well as selection, assignment and training of DCAS inspectors for nuclear work

Maintains quality assurance programs for the construction, overhaul, refueling, testing and support of naval and prototype nuclear propulsion plants. At shipyards, this program is maintained separate from the nonnuclear quality assurance effort, and is independent from the shipyard groups which actually perform the production work.

## Selection and Assignment of Personnel

In the area of selection and assignment of personnel, the program, through the headquarters and field office organization, performs the following functions:

Concurs in screening criteria for accepting Navy officer and enlisted candidates for nuclear propulsion training, including verification of reliability and academic aptitude.

Screens and selects all officers and officer candidates for duty in the Naval Nuclear Propulsion Program.

Concurs in the assignment and removal of Navy military personnel certifications for nuclear duty, such as Nuclear Navy Enlisted Classification Codes and Nuclear Navy Officer Additional Qualification Designators. This also includes concurring in the procedures and policies governing the assignment and removal of Nuclear Navy Enlisted Classification Codes and Nuclear Navy Officer Additional Qualification Designations, and establishing criteria for and conducting a continuing review of personnel performance, in order to ensure retention of only those personnel who meet the program's standards.

Concurs in the assignment of Navy officers and enlisted personnel to the following nuclear billets:

(1) Commanding Officer (or Officer in Charge), Executive Officer, and Engineer Officer (and Reactor Officer when assigned) of nuclear powered ships.

(2) Radiological Control Officers of nuclear capable tenders and shore based nuclear support facilities.

(3) Staff of Nuclear Power School and Naval Reactors Prototypes, including the Commanding Officer and Executive Officer of the Nuclear Power Training Unit assigned to each prototype site.

(4) Senior nuclear trained officers assigned to the staffs of aviation, surface, and submarine type commanders, submarine group commanders, and submarine squadron commanders when such officers will have duties associated with the supervision, operation or maintenance of nuclear powered ships or duties involving training of nuclear trained personnel.

(5) Nuclear trained officers assigned to the staffs of fleet commanders in chief as members of Naval Nuclear Propulsion Examining Boards.

(6) All officers assigned to duty with Naval Nuclear Propulsion Program headquarters and Field Offices, including Supply Corps Officers.

(7) Crew of nuclear powered deep submergence research submarines (currently only NR-1).

(8) Director, Nuclear Equipment Support Division, Navy Ships Parts Control Center.

Concurs in the assignment and personnel management policies which might affect the future suitability for or qualification of Navy nuclear trained personnel (officer and enlisted).

Establishes criteria for and conducts examinations of Navy officers to determine eligibility to serve as Commanding Officer and Engineer Officer (or Reactor Officer where assigned) of a nuclear powered ship.

Advises and concurs in the selection of key contractor, Navy and DOE personnel to senior positions associated with nuclear work at Knolls, Bettis, their respective prototypes, PAO, MAO, and naval shipyards involved in nuclear work; where appropriate, establishes criteria for such selection.

Establishes criteria for and conducts examinations (as deemed necessary) of personnel who will be involved in shipyard nuclear work, and other contractor and government personnel engaged in program work.

Prepares or concurs with all organizational guidance issued for engineering departments of nuclear powered ships and repair departments of nuclear capable maintenance facilities afloat and ashore. This includes specifying operator and supervisor manning levels for all aspects of reactor plant or facility operations and maintenance.

Selects Navy and civilian personnel for duty with the program headquarters and field offices and receives support from Navy and DOE personnel organizations in accomplishing this action.

## Training and Qualification of Personnel

In the area of training and qualification of personnel, the program performs the following functions:

Controls the initial nuclear training of key contractor and all Navy military personnel who will be assigned to duties involving in the supervision, operation, overhaul, refueling or maintenance of nuclear propulsion plants.

Establishes the standards for qualification and maintenance of qualification of all Navy military personnel who operate, supervise, or maintain nuclear propulsion plants.

Establishes the requirements and standards of a formal continuing training program for all nuclear propulsion plant operators. This program includes lectures, seminars, operational training, maintenance training, and casualty drills.

Monitors the conduct of nuclear training on board nuclear powered ships, at Nuclear Power School, and at Naval Nuclear Propulsion Program prototypes through periodic reports submitted by Commanding Officers and other key personnel. The Director periodically evaluates the effectiveness of training by conducting inspections and audits. These inspections and audits are conducted, in accordance with criteria approved by the Director, by experienced headquarters and field office personnel, Nuclear Propulsion Examining Boards, and nuclear trained personnel on various naval staffs. The Director reviews the adequacy of corrective actions taken to prevent recurrence of problems.

Conducts a training course at headquarters for Prospective Commanding Officers and other senior officers of nuclear powered ships and craft and Prospective Plant Managers of Naval Nuclear Propulsion Program prototypes. This training course is specifically tailored to the ship or prototype to which the individual will be assigned. The headquarters organization establishes the curriculum, duration, and training methods of this course.

Exercises control over all management and curriculum aspects of the Senior Officer's Ship Material Readiness Course (SOSMRC.). This includes selecting the course director and concurring in staff assignments. The purpose of this course is to provide an indepth technical training to Prospective Commanding Officers of nonnuclear ships.

## Safeguards, Security, Intelligence, and Foreign and Public Matters

In the area of safeguards, security, intelligence, and foreign and public matters, the program performs the following functions:

Evaluates intelligence information on other nuclear propulsion plants and reactor systems as part of the program's continuing assessment of potential future areas for development in improving our naval nuclear propulsion equipment and systems. This work provides insight into the actual and potential capabilities of foreign countries in naval nuclear propulsion.

Assists in integrating intelligence evaluation of foreign nuclear propulsion plants and reactor systems with all other intelligence information on foreign combatant ships to determine capabilities of foreign nuclear powered submarines and surface ships, and to provide input for development of improvements to U. S. nuclear powered ships.

Ensures proper control of all naval nuclear propulsion information, classified and unclassified. This includes authorizing release of any such information outside the program, establishment of controls for unclassified naval nuclear propulsion information, and developing, issuing and modifying classification guidance for the program.

Ensures measures to prevent unauthorized release of naval nuclear propulsion information, classified or unclassified, are adequate at facilities involved in the program. This includes ensuring those facilities involved in the program are properly audited to ensure compliance with security requirements.

Establishes criteria and procedures for protection against a reasonable threat of sabotage or theft of naval reactor special nuclear material at shipyards, prototype sites, and other government or contractor facilities.

Ensures development of adequate criteria and implementation of procedures for protection of naval reactor special nuclear material used in propulsion plants on board nuclear powered ships or prototypes.

Ensures responses to press, public or foreign inquiries on naval nuclear propulsion matters are accurate and in accordance with policy guidance on release of information; concurs in all such responses, and any others which may have a potential impact on the program.

Provides all technical information and concurs in the release of any information in the event of a nuclear accident, radiological accident, or other incident involving a naval nuclear propulsion plant, associated facility or other program facility.

Controls all technical aspects of U. S. policy relative to the entry of U. S. nuclear powered ships into foreign countries or waters, and any reciprocal arrangements. This includes all naval nuclear propulsion aspects of the use by U.S. nuclear powered ships of U.S. bases overseas.

Assists Congressional committees and personnel as necessary in any matters concerning naval nuclear propulsion.

## General Program Oversight and Administrative Control

In the area of general program oversight and administrative control, the program, through the headquarters and field office organization, performs the following functions:

Carries out long range planning for the development, application, and support of naval nuclear propulsion and any other assigned programs, including technical, safety, fiscal, acquisition, and logistics aspects of the program's research and development effort, reactor plant construction work, and maintenance and supply support.

Prepares, maintains and oversees all specifications, procedures, manuals and instructions related to designing, fabricating, operating, overhauling, refueling, testing, maintaining and supporting reactor plant equipment and systems, and ensures that those items will allow the reactor plant to be operated in a safe and reliable manner. This includes establishing criteria and requirements for disposition of any deviations from specification requirements.

Ensures that design, manufacturing, material, personnel and procedural problems and conditions relating to matters in the program are brought directly to the attention of headquarters to allow prompt and effective corrective or preventive action to be taken, including dissemination of pertinent information to appropriate program personnel and reflecting the lessons learned from such problems wherever appropriate in the program. The headquarters organization establishes and maintains a system of incident reports, technical status reports, and other periodic correspondence from program field offices and operating forces which assists in accomplishing this goal.

Prepares Environmental Impact Assessments and Statements when needed concerning program work, including obtaining necessary agency and other approvals; also prepares Safety Analyses for all naval reactor plants.

Establishes requirements and standards for inspections and audits of all nuclear propulsion plants and naval nuclear work at shipyards, equipment manufacturers, supply activities, nuclear support facilities, maintenance activities, and prototypes. These inspections and audits are to ensure strict compliance with detailed specification requirements, and other manufacturing, operation, maintenance and casualty standards and procedures. The inspections and audits are conducted by experienced headquarters and field office personnel, Fleet Nuclear Propulsion Examining Boards, and nuclear trained personnel on various naval staffs, with reports provided to the Director.

Communicates directly with, and establishes headquarters reporting requirements for, all personnel in matters concerning the supervision, operation and maintenance of propulsion plants and training of nuclear trained personnel.

Oversees and evaluates the performance of nuclear propulsion plant equipment, and determines whether such equipment requires additional support, servicing, testing or replacement.

Participates with other Navy activities in the resolution of problems on non-reactor plant equipment or systems on nuclear powered ships, where such problems could affect reactor plant or ship safety, or otherwise affect reliable operation of the reactor plant.

Participates in the planning for final disposition of the reactor plants on nuclear powered ships following decommissioning, including developing pertinent criteria and methods for such disposal.

Maintains program field offices at all major facilities in the program. The field office representatives report to the Director.

Directs or oversees all logistic support functions associated with naval nuclear propulsion plants. This includes establishing or concurring in the quantities of spare components, repair parts and material procured and maintained in inventory, controlling storage and issuance of such material from stock, and establishing policies and procedures for controlling such items. This also includes establishing the quantities of spare components, repair parts, test equipment and other materials carried on board nuclear powered ships in support of the nuclear propulsion plant.

Controls the possession and use of all special nuclear material under the cognizance of the program, including all aspects of shipment of new and spent naval nuclear cores and components. This includes all facets of material accountability, as well as designing, building and certifying use of special shipping containers.

Carries out the provisions of the Atomic Energy Act for transfer of special nuclear material (in accordance with National Security Decision Memorandum 182) by authorizing the Department of Defense to manufacture, produce or acquire nuclear powered ships for which Congress has authorized funds.

Determines requirements for, oversees design and procurement of, and controls all railcars specially built for shipment of naval nuclear reactor plant components and cores.

# APPENDIX 1

## OFFICIAL PUBLISHED SOURCES OF INFORMATION ON THE NAVAL NUCLEAR PROPULSION PROGRAM[1]

### BOOKS OR PAMPHLETS

Atomic Shield, 1947 - 1952, Vol. II of A History of the U.S. Atomic Energy Commission, R. G. Hewlett & F. Duncan, University Park: Pennsylvania State University Press, 1969

Nuclear Navy, 1946-1962, R. G. Hewlett and F. Duncan, U.S. Atomic Energy Commission History, Chicago Illinios: University of Chicago Press, 1974

The Shippingport Pressurized Water Reactor, Reading, Massachusetts, Addison-Wesley, 1958

Light Water Breeder Reactor, Department of Energy (booklet)

A Review of the Naval Nuclear Propulsion Program, June 1981 (booklet)

History of the Development of Zirconium Alloys for Use in Nuclear Reactor, (booklet), Energy Research and Development Administration, March 21, 1975

### HEARINGS

June 22, 1953, Department of Defense Appropriations for 1954 - Subcommittee of the Senate Committee on Appropriations. Part 2.

May 9, 1955, Authorizing Legislation - Subcommittee on Authorizing Legislation of the Joint Committee on Atomic Energy

June 27 and 29, 1956, Second Supplemental Appropriation Bill, 1957 - Subcommittee on Public Works Appropriations of the House Committee on Appropriations. Part 2.

March 7 and April 12, 1957, Naval Reactor Program and Shippingport Project - Subcommittee on Military Applications and the Subcommittee on Research and Development of the Joint Committee on Atomic Energy

June 24, 1957, Authorizing legislation - Subcommittee on Legislation of the Joint Committee on Atomic Energy.

February 27, and May 28, 1958, Amending the Atomic Energy Act of 1954 - Subcommittee on Agreements for Cooperation of the Joint Committee on Atomic Energy

March 3, 1958, Department of Defense Appropriations For 1959 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations.

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[1] This listing is not a complete listing of all sources on the Naval Nuclear Propulsion Program; it does not include testimony by all government officials, statements in the Congressional Record, unofficial books and articles, technical books and publications, speeches, etc.

March 23, 1959, AEC Authorizing Legislation, Fiscal Year 1960 - Subcommittee on legislation of the Joint Committee on Atomic Energy.

April 11 and 15, 1959, Review of Naval Reactor Program and Admiral Rickover Award - Joint Committee on Atomic Energy.

April 27, 1959, Department of Defense Appropriations for 1960 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations. Part 6.

June 25, 1959, Atomic Energy Commission Appropriations for 1960 - Subcommittee on Public Works Appropriations of the House Committee on Appropriations.

August 18, 1959, Report On Russia By Vice Admiral Hyman G. Rickover, USN - House Committee on Appropriations.

February 17, 1960, Development, Growth, and State of The Atomic Energy Industry - Joint Committee on Atomic Energy.

March 10, 1960, AEC Authorizing Legislation, Fiscal Year 1961 - Subcommittee on Legislation of the Joint Committee on Atomic Energy.

March 25, 1960, Department of Defense Appropriations for 1961 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations. Part 7.

April 9, 1960, Naval Reactor Program and Polaris Missile System - Joint Committee on Atomic Energy.

April 24, 1961, Authorizing Appropriations For Aircraft, Missiles, And Naval Vessels For The Armed Forces - House Committee on Armed Forces.

May 11, 1961, Department of Defense Appropriations for 1962 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations. Part 6.

May 26, 1961, Public Works Appropriations For 1962 - Subcommittee on Public works Appropriations of the House Committee on Appropriations. Part 3.

June 15, 1961, Radiation Safety and Regulations - Joint Committee on Atomic Energy

March 31 and April 1, 1962, Tour of The U.S.S. "ENTERPRISE" And Report on Joint AEC-Naval Reactor Program - Joint Committee on Atomic Energy

April 10, 1962, Peaceful Uses Of Atomic Energy - Joint Committee on Atomic Energy

May 18, 1962, AEC Authorizing Legislation, Fiscal Year 1963 - Subcommittee on Legislation of the Joint Committee on Atomic Energy.

May 25, 1962, Public Works Appropriations For 1963 - Subcommittee on Public Works Appropriations of the House Committee on Appropriations. Part 6.

May 23, 1963, Department of Defense Appropriations For 1964 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations.

June 26, 27, July 23, 1963 and July 1, 1964, Loss of the U.S.S."THRESHER" - Joint Committee on Atomic Energy

October 30, 31 and November 13, 1963, Nuclear Propulsion For Naval Surface Vessels - Joint Committee on Atomic Energy

December 1963, report: Nuclear Propulsion for Naval Surface Vessels.

March 6, 1964, Department of Defense Appropriations for 1965 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations. Part 3 and Part 5.

February 8 and April 8, 1965, AEC Authorizing Legislation, Fiscal Year 1966, Joint Committee on Atomic Energy. Part 2.

March 18, 1965, AEC Authorizing Legislation, Fiscal Year 1966 - Joint Committee on Atomic Energy. Part 3.

May 5, 1965, Public Works Appropriations For 1966 - Subcommittee on Public Works Appropriations of the House Committee on Appropriations. Part 3.

May 12, 1965, Department of Defense Appropriations For 1966 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations.

January 26, 1966, Naval Nuclear Propulsion Program - Joint Committee on Atomic Energy.

February 16, 1966, AEC Authorizing Legislation, Fiscal Year 1967 - Joint Committee on Atomic Energy. Part 2.

April 20, 1966, Public Works Appropriations For 1967 - Subcommittee on Public Works Appropriations of the House Committee on Appropriations. Part 2.

May 2, 1966, Hearings on Military Posture and H.R. 13456 - House Committee on Armed Services.

May 11, 1966, Department of Defense Appropriations for 1967 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations. Part 6.

March 16, 1967 and February 8, 1968, Naval Nuclear Propulsion Program - 1967-68 - Joint Committee on Atomic Energy.

April 18, 1967, Hearings on Military Posture and a Bill (H.R. 9240) - House Committee on Armed Services.

April 26, 1967, Public Works Appropriations For 1968 - Subcommittee on Public Works of the House Committee on Appropriations. Part 2.

May 1, 1967, Department of Defense Appropriations For 1968 - Subcommittee on Department of Defense of the House Committee on Appropriations. Part 6.

March 13, 1968, U.S. Submarine Program - Preparedness Investigating Subcommittee of the Senate Committee on Armed Services.

April 11, 1968, To Renew The Defense Production Act of 1950, As Amended - House Committee on Banking and Currency.

April 23, 1968, Public Works Appropriations For 1969 For Water and Power Resources Development and The Atomic Energy Commission - Subcommittee on Public Works of the House Committee on Appropriations. Part 3.

May 1, 1968, Department of Defense Appropriations For 1969 - Subcommittee on Department of Defense of the House Committee on Appropriations. Part 6.

June 13, 1968, Hearings on Military Posture and an Act (S. 3293 - House Committee on Armed Services

June 21, 1968, Nuclear Submarines of Advanced Design - Joint Committee on Atomic Energy.

July 25, 1968, Nuclear Submarines of Advanced Design - Joint Committee on Atomic Energy. Part 2.

November 14, 1968, Economics of Military Procurement - Subcommittee on Economy in Government of the Joint Economic Committee. Part 2.

March 26, 1969, Special Pay for Certain Nuclear Submarine Officers - House Committee on Armed Services.

April 23, 1969, Naval Nuclear Propulsion Program - 1969 - Joint Committee on Atomic Energy.

May 1, 1969, H.R. 9328, Providing Special Pay to Junior Nuclear Qualified Submarine Officers - Senate Committee on Armed Services.

May 5, 1969, Public Works for Water, Pollution Control, and Power Development and Atomic Energy Commission Appropriations, Fiscal Year 1970 - Senate Committee on Appropriations. Part 4.

May 20, 1969, Public Works Appropriations For 1970 For Water and Power Resources Development and The Atomic Energy Commission - Subcommittee on Public Works of the House Committee on Appropriations. Part 4.

July 24, 1969, Department of Defense Appropriations For 1970 - Subcommittee on Department of Defense Appropriations of the House Committee on Appropriations. Part 6.

September 24, 1969, The Efficiency and Effectiveness of Renegotiation Board Operations, Part 1 - Government Activities Subcommittee of the House Committee on Government Operations.

March 19, 1970, AEC Authorizing Legislation, Fiscal Year 1971 - Joint Committee on Atomic Energy.

March 19 and 20, 1970, Naval Nuclear Propulsion program - 1970 - Joint Committee on Atomic Energy.

April 2, 1970, Extension of the Defense Production Act and Uniform Cost Accounting Standards - Subcommittee on Production and Stabilization of the Senate Committee on Banking and Currency.

April 15, 1970, CVAN-70 Aircraft Carrier - Joint Senate-House Armed Services Subcommittees of the Senate and House Armed Services Committees.

April 28, 1970, Public Works for Water, Pollution Control, and Power Development and Atomic Energy Commission Appropriations Bill, 1971 - Subcommittee on Public Works of the House Committee on Appropriations. Part 4.

April 28, 1970, Public Works for Water, Pollution Control, and Power Development and Atomic Energy Commission Appropriations, Fiscal Year 1971 - Senate Committee on Appropriations. Part 3.

May 13, 1970, Department of Defense Appropriations for 1971 - Subcommittee on Department of Defense of the House Committee on Appropriations. Part 7.

June 20, 1970, To Extend the Defense Production Act of 1970, As Amended - House Committee on Banking and Currency.

March 10, 1971, Naval Nuclear Propulsion Program - 1971 - Joint Committee on Atomic Energy.

April 28, 1971, The Acquisition of Weapons Systems - Subcommittee on Priorities and Economy in Government of the Joint Econimic Committee. Part 3.

May 3, 1971, Public Works for Water and Power Development and Atomic Energy Commission Appropriations, Fiscal Year 1972 - Senate Committee on Appropriations. Part 3.

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December 9, 1971, Weapon Systems Acquisition Process - Senate Committee on Armed Services.

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April 27, 1972, Public Works for Water and Power Development and Atomic Energy Commission Appropriation Bill, 1973 - Subcommittee on Public Works of the House Committee on Appropriations. Part 4.

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May 18, 1972, Public Works for Water, Pollution Control and Power Development and Atomic Energy Commission Appropriations, FY 1973 - Subcommittee on Public Works of the Seante Committee on Appropriations. Part 3.

April 10, 1973, Public Works for Water and Power Development and Atomic Energy Commission Appropriations, Fiscal Year 1974 - House Committee on Appropriations. Part 4.

April 12, 1973, Public Works for Water and Power Development and Atomic Energy Commission Appropriations, Fiscal Year 1974 - Senate Committee on Appropriations. Part 4.

June 7, 1973, Cost Escalation in Defense Procurement Contracts and Military Posture and H.R. 6722 - House Committee on Armed Services. Part 4.

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January 17 and March 21, 1974, Military Posture and H.R. 12564 - Department of Defense Authorization for Appropriations for Fiscal Year 1975 - House Committee on Armed Services. Part 2.

February 25, 1975, Naval Nuclear Propulsion Program - 1974 - Joint Committee on Atomic Energy.

April 2, 1974, Public Works for Water and Power Development and Atomic Energy Commission Appropriations, Fiscal Year 1975 - Senate Committee on Appropriations. Part 4.

April 3, 1974, Special Energy Research and Development Appropriation Bill for 1975 - Subcommittees of the House Committee on Appropriations. Part 3.

April 3, 1974, Public Works for Water and Power Development and Atomic Energy Commission Appropriation Bill 1975 - Subcommittee on Public Works of the House Committee on Appropriations. Part 4.

April 23, 1974, Fiscal Year 1975 Authorization For Military Procurement, Research and Development, and Active Duty, Selected Reserve and Civilian Personnel Strengths - Research and Development Subcommittee of the Senate Committee on Armed Services. Part 7.

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September 23, 1974, Current Status of Shipyards, 1974 - Seapower Subcommittee of the House Committee on Armed Services. Part 3.

March 5, 1975, Naval Nuclear Propulsion Program - 1975 - Subcommittee on Legislation of the Joint Committee on Atomic Energy.

March 17, 1975, Military Posture and H.R. 3689 (H.R. 6674) Department of Defense Authorization For Appropriations For Fiscal Year 1976 and 197T - House Committee on Armed Services. Part 3.

April 2, 1975, Defense Procurement in Relationships Between Government and Its Contractors - Subcommittee on Priorities and Economy in Government of the Joint Committee on Economics.

April 15, 1975, Public Works for Water and Power Development and Energy Research Appropriation Bill, 1976 - Subcommittee on Public Works of the House Committee on Appropriations. Part 5.

June 12, 1975, Oversight of the Renegotiation Act - Subcommittee on General Oversight and Renegotiation of the House Committee on Banking, Currency, and Housing.

July 8, 1975, Department of Defense Appropriations for 1976 - Subcommittee on the Department of Defense of the House Committee on Appropriations. Part 10.

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# APPENDIX

April 22, 1981

## NOTES FOR DISCUSSION WITH THE DIRECTOR, OFFICE OF MANAGEMENT AND BUDGET

1. In the past, Directors of the Office of Management and Budget and their key personnel have tended to focus nearly all their attention on the "Budget" aspect of the job, neglecting the "Management" responsibilities of the office which may actually be more important. It seems this was the intention when the OMB was established. The "M" was placed before the "B". But the "B" is much more glamorous than the "M" and so your predecessors have tended to concentrate on it.

2. It is worth remembering and emphasizing to your people the following:

a. OMB personnel cannot do a good job unless they personally get into the details.

b. They should recognize that "official" comments received from Government agencies on proposed OMB policies have been filtered through many levels. Rather than reflecting the collective experience and wisdom of the agency, such input may be nothing more than the views of the staff member highest in the chain of command.

c. OMB personnel should propose what is best for the U.S. Government and not simply seek the middle ground between various interest groups.

d. They must follow through on their commitments. Issuing policy directives is only the first step. Without follow through, policy directives soon become useless.

e. OMB personnel should take a long range view of their work – as if their present jobs were theirs for life and not just stepping stones in their careers.

3. The following pages contain specific recommendations regarding areas in the Defense Department and elsewhere in Government where the Office of Management and Budget management attention could promote efficiency and reduce costs.

4. For some of these subjects, I have attached more detailed explanations. In all of these areas, or in others, my people and I would be happy to assist OMB as best we can based on our many years experience in Government.

## IMPROVED EFFICIENCY IN THE DEFENSE DEPARTMENT

1. This Administration has stated it is pro-defense, pro-business, and anti-regulation. Many believe the Defense Department will be insulated from efforts to trim the bureaucracy, and that large defense contractors will have even easier "pickings" in the Department than they have had in the past.

2. To dispel this notion and reduce unnecessary expenditures, the Administration should assign a high priority to streamlining the Defense Department and insist that it conduct its procurement business properly.

3. The Department is not well organized to accomplish its work efficiently or effectively. Excessive organizational layering, overstaffing, transient management, short tours of duty, preoccupation with management systems, cumbersome and lengthy budget review processes, as well as other factors, combine to result in efficiency and waste.

4. In the Defense Department those at the top are far removed from the subordinates who must do the work and are knowledgeable. As a result, the top people tend to seek advice from their personal staffs, consultants, and contractors, rather than from the Department's own professionals. The previous two Secretaries of the Navy discouraged recommendations from their subordinates while maintaining an open door to some large defense contractors.

5. Unnecessary organizational layering should be eliminated. Such layering is detrimental to performance, to morale, and results in much delay. In many cases, the "checkers" outnumber the "doers". The extra layers of management delay work, waste time, and dilute responsibility. Moreover, large numbers of people are required to staff the offices at each layer. In the Navy the Office of the Chief of Naval Material – a 900 man operation – could be eliminated in its entirety with no discernible adverse effect on the Navy. This would not only save money; it would also improve efficiency.

6. The Office of the Secretary of Defense (OSD) is far too large and should be reduced. When established in 1946, the concept was to have three special assistants and a small executive office. Today there are 1650 on the OSD staff. This vast staff slows down decision making, diminishes the job of the service Secretaries, and has non knowledgeable and non-responsible officials making the decisions.

7. The number of flag officers in the Defense Department should be reduced. The savings will come from eliminating the staffs that cling around each of them. Many of these staffs create unnecessary administrative work which must be accomplished by subordinate commands who need to concentrate on getting their "day-to-day" work done rather than answering numerous questions from supernumerary staff people. Some of the flag officer positions are "made" to take care of officers whose turn it is to have shore duty.

8. The military establishment should be run for the good of the Nation, not for the career enhancement of its officers. The wasteful practice of transferring military people from one location to another every two or three years should be stopped. In addition to high cost, frequent personnel transfers are disruptive and cause inefficiency. It should not be necessary for all officers to have multiple changes of duty in order to be promoted to flag rank.

9. Tours of duty in many military jobs should be longer than the two or three years they are at present. Reducing excessive personnel rotation will save some money directly. The major savings, however, will come from leaving people on the job long enough to learn it and to be held accountable for results. Transients cannot operate the Defense Department properly; nor is this the practice in any other business.

10. Military personnel should be paid a regular salary rather than having to operate under today's confusing system of pay, allowances, and fringe benefits. A salary system would be far simpler and more equitable than the present system. Military personnel as well as the public would then have a better appreciation of how much they are actually being paid. Salaries might also reduce public criticism of military benefits and help lessen the actual and perceived erosion of benefits among military people.

11. Military people should be encouraged to pursue careers of thirty years unless disabled or not able to meet the needs of the service. The practice of the military to begin receiving retired pay after twenty years of service should be phased out. Twenty year retirement encourages marginal people to stay for twenty years, and the best to leave after a minimum of twenty years. Likewise, the requirement to serve at least twenty years before earning the right to any military retired pay denies the services of the flexibility to readily discharge those not needed or desired.

12. The Navy should get a better return on its investment in the training of midshipmen at the Naval Academy and in the Naval Reserve Officer Training Corps (NROTC) program. This problem applies to the other military services as well. The curricula

at both the Naval Academy and the NROTC colleges or universities is so loosely enforced that the principal objective of training and educating midshipmen to assure they have proper technical backgrounds for their future officer assignments is not attained. In addition, midshipmen are currently allowed to resign from the Navy after receiving two years of free education without any residual obligation for service as an enlisted person or pay-back of funds.

13. The officer postgraduate education program is another wasteful aspect of military personnel policy, and should be drastically cut back. Few jobs in the Navy require a graduate degree, particularly in the non-technical areas where most Naval officers conduct their studies. Postgraduate education has become, in most cases, a fringe benefit where an officer can, at Government expense, improve his credentials for a job after he leaves the military. Similarly, with respect to the "value" of the Naval War College, there is questionable logic in having 1100 Naval officers, each of whom can command the entire U.S. Fleet in war. Here again is a case where we must find something to do for the large number of senior officers. It is, of course, the officer rank structure which brings this about.

14. Manpower requirements should be reduced by consolidating and unifying military shore establishments. It is not necessary to have both Naval hospitals and Army hospitals in the same city, nor an airbase for the Navy and another for the Air Force. Selected military training activities and other shore establishments could and should be combined, with a savings in personnel and other resources.

15. The Defense Department's Independent Research and Development (IR&D) program should be abolished or drastically cut back. The Department of Defense spends $1.5 to $2 billion a year subsidizing IR&D projects, in addition to the research and development contracts the Defense Department awards directly. Contractors initiate these projects, yet the Defense Department has no say over the work to be done and has no rights to the ideas developed – even in cases where the Government pays nearly the total cost.

16. The Defense Department should stick to its primary functions. Defense contracts should not be a vehicle to implement social programs. Primary emphasis must be placed on assuring a defense establishment that is equipped and supplied to win a war.

17. The undue reliance in the military on management information systems and systems analysis should also be stopped. The preoccupation with "management" in the Defense Department is stifling. At each level of the bureaucracy, people try to impress higher authorities by accumulating masses of information before making a recommendation.

18. The Defense budget approval process should be simplified. The budget period should be two years rather than one.

19. To give both the Defense Department and its contractors more incentive to budget realistically and then live within these budgets, the Office of Management and Budget should adopt a policy that overruns on continuing programs are to be funded by cutbacks in that same program.

20. The Defense Department needs to become a more demanding customer – particularly with defense contractors who, through their own inefficiency, incur cost overruns, fail to meet delivery schedules or quality requirements, and try to blame these problems on the Government through inflated claims and threatened work stoppages. For the past decade these problems have plagued Navy shipbuilding. When Defense officials adopt the role of partner to large defense contractors rather than customer and settle claims by payment of extra contractual relief, they encourage poor performance, buy-ins, and claims.

21. The Defense Department must take a much firmer stand than it has in the past against those firms that take unfair advantage of sole source positions in non-competitive procurements. It needs to take firm action with contractors that harass the Navy with omnibus claims; that refuse to settle the price of changes in advance of authorization; that attempt to dictate terms and conditions under which the Navy must buy its ships.

22. The Defense Department needs to start using what bargaining power it has to establish a proper business relationship with its recalcitrant contractors. This is particularly important in Navy shipbuilding contracts.

23. Defense budget decisions regarding which kinds of ships and how many the Administration will support should take into account any outstanding business problems with contractors. Before the Navy and the Defense Department seek Congressional approval of funds for ship construction they should know they will be able to contract for these ships on a proper basis if Congress provides the funds. If the Navy needs a ship but is unable to enter into a satisfactory business arrangement with the contractor, it should make the facts known to Congress during the budget review process and seek legislative advice and assistance.

24. The Defense Department needs to be able to award contracts to other than the low bidder when the head of a military department concludes that a contractor is "buying in", or that the ultimate cost to the Government will be lower by going to other than the low bidder. The Navy has wasted hundreds of millions of dollars buying from one high cost shipyard that has repeatedly

submitted the lowest bid. Electric Boat has been incurring costs 50 percent higher than Newport News for SSN 688 Class submarine construction. Yet, through competitive bidding, Electric Boat has won contracts for 20 of these ships compared to 13 for Newport News. Electric Boat subsequently makes up for the differences through claims.

25. The Office of Management and Budget should seek legislation to prohibit use of public funds to pay insurance claims in cases involving a contractor's own defective material and workmanship, or to pay insurance premiums on policies that would cover these risks. Electric Boat is trying to set a precedent for all shipbuilders that the Navy insure them against their own mistakes.

26. The Defense Department should be proscribed from using public funds for paying contractors sums that are in dispute pending adjudication in the courts. By making such payments, the Defense Department eliminates any incentive the contractor has to prosecute a case promptly. One $30 million contract dispute with Electric Boat has been delayed since 1976, and a trial date before the Armed Services Board of Contract Appeals has not yet been set. Electric Boat continues to hold the money in dispute.

27. The Defense Department should seek legislation to establish a one year statute of limitations on submission of claims. The law should prohibit payment of public funds for claims not fully documented and submitted within this period. Presently contractors, particularly shipbuilders, have a strong incentive to save up claim items because the delay enables them to obfuscate issues and frustrate the Government's work of analysis of the claim. Further, when claims are submitted years after the event, the knowledgeable people in Government have left, thus leaving the Government invariably at a disadvantage.

28. The Defense Department should seek legislation to require that a contractor who stops work on a defense contract as a result of a contract dispute will, for any new contracts awarded in the succeeding ten years, be required to obtain, at his own expense, a performance bond, the cost of which may not be passed on to the Government, either directly or indirectly.

29. The Navy should reinstitute nuclear submarine construction in Naval shipyards. This would provide needed construction capacity, maintain the Navy's in-house construction experience, and provide alternatives in cases where private yards decide to deal improperly with the Government. This method is far preferable to building nuclear submarines abroad which has been suggested but which would result in severe security, safety and cost problems.

30. The Defense Department should consider having the Navy contract for exclusive use of our major shipyards, allocating

work to shipbuilders as best meets the Navy's needs and paying their actual costs plus a flat management fee established at the outset, and with no provision for increasing or decreasing the fee for the life of the contract. If the Defense Department cannot, with the help of Congress, come up with a practical way to ensure that contractors will live up to both the letter and the spirit of contracts, we need to face up to this fact squarely and concentrate on eliminating the incentives that have so far proven counterproductive. If, in the non-competitive environment of Navy shipbuilding, profit incentives of competitive bidding and fixed priced contracting can be so thoroughly subverted as is the practice today, we would be better off eliminating these incentives altogether. With guaranteed fixed profits, perhaps the conglomerates that own the major shipyards would be more inclined to let experienced production personnel run the yard without the corresponding difficulties that arise under the present system.

31. The Defense Department and the Office of Management and Budget should set up a viable system for recovery of excessive profits on defense contracts. Since expiration of the Renegotiation Act only the profit limiting provisions of the Vinson-Trammell Act remain in effect. These have been suspended through fiscal year 1981, and the Defense Department has been trying to abolish them altogether. The Defense Department is vulnerable to overpricing. Newport News, for example, has been averaging 17.5 percent profit on sole source, risk-free, cost reimbursement contracts for submarine overhaul work. To discourage overcharging and to avoid the criticism of defense contractors making excessive profits, the Government must have the statutory authority to recover excessive profits on defense contracts.

## IMPROVED EFFICIENCY IN AREAS OUTSIDE THE DEFENSE DEPARTMENT

32. All funds to be spent for consulting services contracts should have to be requested as a separate line item in the budget. This added visibility should go a long way toward reducing the excessive use of consultants on work of negligible value, or award of consulting contracts to "friends" of officials, or to companies to which they can migrate when they leave Government.

33. Government regulatory programs which are mandated for certain Government operations in addition to commercial operations should be cut back. A number of the various regulatory programs that have come into being in the past several years assign oversight or regulatory responsibility for certain Government operations to an independent Government agency or group which creates so many extra rules that it becomes difficult for an

organization with line responsibility to get its job done efficiently. Notable in its adverse effects is the Occupational Safety and Health Act (OSHA) which creates a number of interferences that increase the cost and complexity of Defense and Energy Department operations without a concomitant increase in safety or personnel protection.

34. Regardless of the future of the Department of Energy, the new Administration should ensure that atomic energy and nuclear programs remain in a non-defense agency, whether it be within the Department of Energy or another independent agency. The original interface between the Atomic Energy Commission and the Defense Department provided a valuable system of checks and balances between the two Departments concerning nuclear weapons production as well as use of nuclear power for ship propulsion. There continues to be talk of transferring some of the defense related programs in the Department of Energy to the Defense Department. This is not a good solution since it will lose some of the independence which is essential in dealing with atomic energy matters, particularly safety.

35. Abolish the Office of Federal Procurement Policy (OFPP) which is a part of the Office of Management and Budget. The statutory authority for OFPP expires October 1, 1983. In the seven years it has been in existence, that office has accomplished little in the way of improving economy and efficiency. It has instead become a focal point where outside special interests can readily influence Government procurement policy. It would be far better to coordinate Federal procurement policy by replacing OFPP with an interagency committee consisting of representatives from the major Government procurement agencies — the Department of Defense, the Department of Energy, General Services Administration and the National Aeronautics and Space Administration.

36. The Office of Management and Budget should propose legislation which will enable better management of the senior civilian Government workforce. The implementation of the Senior Executive Service and Merit Pay System requirements for career Government civilians under the provisions of the 1979 Civil Service Reform Act has been chaotic, has created numerous inequities and has improperly placed too much emphasis on bonuses. Senior Government officials are interested in accomplishment at a salary level commensurate with their responsibility, not in getting occasional bonuses. In fact, bonuses have had a detrimental effect. For example, the "politics" inherently involved in awarding bonuses to a few creates ill-will among many senior people, rather than providing a motivating factor for those who consistently perform well. What is needed is an equitable adjustment of the present salary ceilings for senior Government personnel, to provide an appropriate gradation in compensation for significant management and technical work performed by these career civilians.

37. The Office of Management and Budget should propose legislation to reform the Government's numerous retirement systems to save money, increase efficiency, and eliminate many of the present inequities. Specifically:

a. Able Federal civilian employees should be encouraged to defer retirement until at least age 62. The existing rules for computing and adjusting retired pay discourages competent and dedicated people from remaining in Government who would otherwise continue working past age 55. The Government loses their expertise and wastes money. It would be cheaper to pay the good people extra to stay in Government after age 55 than to pay their retirement benefits plus the salary of their replacements.

b. The 50-some Government retirement plans should be consolidated into a single system for all Federal employees, including the military. Military and civilian employees should be required to contribute to their retirement, and agencies should fully fund retirement on a "pay-as-you-go" basis. Retirement credits earned in the military or Federal service should be interchangeable.

38. The Freedom of Information Act needs to be drastically revised to avoid harm to National security and to protect Government agencies from harassment. The Act also can be used to force disclosure of unclassified military technical data that should be protected both in the United States and from foreigners. In addition, much Government money and effort are being wasted responding to requests from contractors and law firms which generate claims and harass the Government by conducting the equivalent of discovery. Much of the effort goes unreimbursed and the time spent in responding to requests is lost by Government officials who have full time jobs to perform.

## A. REORGANIZATION OF THE DEFENSE DEPARTMENT

1. The staffs of the Defense and Service Secretaries should be reduced to the barest minimum.

a. No function performed by the Joint Chiefs of Staff or the Service Chiefs should be duplicated by anyone on the staffs of the Defense or Service Secretaries. For example, the research, engineering and program evaluation, and appraisal staffs in the Secretariats duplicate functions already performed by the Military Services. The Defense and Service Secretaries should use the expertise of civilian and military people within their Department to conduct evaluations and provide advice. The immediate staffs of the Secretaries should be at the bare minimum necessary to oversee and audit the Military Services.

b. The military and civilian experts of the Defense Department should not be assigned to the Defense or Service Secretaries, but should be assigned to the Joint Chief of Staff, Service Chiefs or individual Service weapons acquisition commands. These experts would be responsible and accountable for performing the various Defense functions and for advising and assisting the Defense and Service Secretaries.

c. The Secretary of Defense should provide direct control and oversight only over the Joint Chiefs of Staff and the various Defense agencies, such as the Defense Logistics Agency, which provide common services or support to all the Military Services.

d. The Secretary of Defense should rely on the Service Secretaries, rather than Assistant Secretaries of Defense, to provide control and oversight of the individual Services. The office of the Secretary of Defense should not duplicate work done by the Service Secretaries.

2. The Service Secretaries should have direct control over the Service weapons acquisition and logistical support commands. For example, the Naval Sea Systems Command and other Navy Systems Command would report directly to the Secretary of the Navy rather than via the Chief of Naval Operations. The Chief of Naval Operations could then devote his time to requirements determination, planning, budgeting and Fleet operations. This arrangement would be consistent with the Navy's bi-linear organization, which existed until the early 1960's.

3. The Assistant Secretary of Defense (Controller) should not participate in the determination of specific military requirements. His function should be to incorporate requirements provided to him by the Military Services into the Five Year Defense Plan and annual budgets to help solve funding problems and to ensure proper budget execution.

4. Unnecessary organizational layering below the Secretariat level should also be eliminated. Such layering is detrimental to performance and morale and results in much delay. The extra layers of management delay work, waste time, and dilute responsibility. Moreover, large numbers of people are required to staff the offices at each layer. In many cases, the "checkers" outnumber the "doers".

In the Navy, the Naval Material Command is a prime example of this widespread problem. About fourteen years ago, the Navy's material functions were reorganized along the lines of the Air Force. Four technical bureaus were eliminated and their functions assumed by six new "Systems Commands". Superimposed upon these systems commands was the office of the Chief of Naval Material, a new bureaucracy which added more layers of management. This headquarters staff, referred to as the Naval Material Command, has since grown to more than 900 people, one-third of whom are strictly overhead, existing only to support the office of the Chief of Naval Material itself. The Office of Management and Budget at one time recommended abolition of this Command.

Organization layering has also contributed to unnecessary delays and excessive use of overtime at naval shipyards. Arbitrary personnel ceilings and hiring restrictions from higher Defense authorities have prevented the yards from adequately manning approved ship overhaul work. Without such restrictions, shipyard commanders could have adjusted manning to accomplish overhauls in accordance with fixed price agreements ("contracts") and within approved budgets. Shipyard commanders, who are responsible for the work, rather than higher level bureaucrats, should have the authority to make such adjustments in manning.

Authority should be returned to those directly responsible for the work and unnecessary organizational layers eliminated. Strict controls are needed to preclude the build-up of new management layers and their staffs. The coupling of authority and responsibility--a concept long espoused by the military--has been lost.

The Office of Management and Budget should conduct an in-depth functional review to ferret out organizations performing "duplicate" or "useless" functions.

5. The undue reliance in the military on management information systems and systems analysis should also be stopped. The preoccupation with "management" in the Defense Department is stifling. At each level of the bureaucracy, people try to impress higher authorities by accumulating masses of information before making a recommendation.

Requests for this information are forwarded through the chain of command down to the lowest echelon technical manager. He then is required to translate actual situations facing him into "management information" forms prescribed by his superiors. By the time he answers all of the questions raised by the many principals and individual staff personnel, including the new breed of theoretical management experts, little time remains for him to actually manage his given job.

A working level manager faces countless people in staff positions in organizations senior to his own. Each of these can make demands on his time and require him to justify his actions. As a result, there are currently thousands of people--military and civilian--employed at headquarters levels within the Department of Defense, preparing, typing, copying, and distributing volumes of management reports which necessarily receive only a cursory review before being filed. Large numbers of personnel could be removed from such staffs. Not only would there be no loss in efficiency, in actuality, the elimination of senseless "paperwork" studies and reports would enhance efficiency.

6. The Department of Defense should concentrate on developing and retaining technical experts on military requirements, technology, and industrial capability. Such persons would be assigned to the organizations doing the work, given sufficient authority to do the work, remain on the job long enough to get it done, and be held accountable for results.

7. Manpower requirements should be further reduced by consolidating and unifying military shore establishments. It is not necessary to have both Naval hospitals and Army hospitals in the same city, nor an airbase for the Navy and another for the Air Force. Selected military training activities and other shore establishments could and should be combined, with a savings in personnel requirements and other resources resulting.

8. The overall flag and general officer strength should be considerably reduced. Half of this reduction should be through stricter selection, the other half through forced retirement of flag and other senior officers.

Eliminating unnecessary flag, general, and other high ranking officer billets would help the retention of our most capable officers. Further, there should be a concurrent reduction in staffs that would eventually reduce the officer and enlisted grade structure. These reductions would lead to the elimination of many military and civilian billets and might help put a damper on civil service grade inflation.

9. The practice of military people changing jobs every two or three years should be stopped. With the current high turnover rate, servicemen have insufficient time to learn their jobs. Rarely are they on a job long enough to see the results fo their efforts or to be held accountable for them. Consequently, there is a premium on satisfying one's transient superiors and not "making waves". Officers become jacks-of-all trades. True responsibility for actions is never realized under the fragmented, short tour concept.

In addition, the wasteful practice of transferring military people from one location to another every few years should be stopped. In addition to high cost, frequent personnel transfers are disruptive. They create hardships on military people and their families and foster mediocre performance. Often some of our best people leave the military to escape the disruption of moving their families so frequently.

10. The Defense budget approval process should be simplified. The budget period should be two years rather than one. There should be only two levels of review prior to submitting the budget to the Congress--one by the individual Service Chief followed by a combined review of the Office of the Secretary of Defense and the Office of Management and Budget.

11. The military people should be encouraged to pursue careers of thirty years or more rather than only twenty years. Those selected out of the military with five or more years service, should receive a lump sum payment and a smaller, deferred, retired pay starting at age 60 or 62. In addition, retired military personnel employed by the Federal Government should not be paid in total more than the approved Federal Civilian salary for the job held.

## B. MILITARY COMPENSATION AND RETIRED PAY FOR MILITARY AND FEDERAL CIVILIAN PERSONNEL

1. The OMB should propose legislation enabling the Government to pay military people a salary rather than today's confusing combination of pay, allowances and fringe benefits. A salary system would be simpler and more equitable than the present system. Military personnel as well as the public would have a better appreciation of how much is actually paid. Salaries might also reduce criticism of military benefits and lessen the actual and perceived erosion of benefits among military people. Special pay should be granted in addition to salaries, only as necessary to recruit people with scarce skills. Special pay should be received for the particular skills needed and be paid only while a shortage of such skills exists. For example, in absence of a bona fide shortage, military pilots should not continue to receive flight pay.

2. The OMB should propose legislation to reform the Government's numerous retirement systems to save money, increase efficiency and eliminate many of the present inequities. Specifically:

a. Military people should be required to pursue careers of thirty years unless disabled or not meeting the needs of the service. The practice of the military to begin receiving retired pay after but twenty years of service should be phased out. Twenty year retirement encourages marginal people to stay for twenty years and the best to leave after but twenty years. Rather than an effective device for attracting and retaining the right people, early retirement is inefficient and counterproductive.

b. To improve personnel management flexibility, military people with five or more years service who are passed over or selected out prior to completing thirty years should be entitled to retired pay starting at age 62 with less than twenty years service, or at age 60 with more than twenty years. Such retired pay should be based on number of years served. The existing requirement to serve at least twenty years prior to earning any retired pay denies the military sufficient flexibility to retain those desired and to separate those no longer needed or wanted. The existing system also deprives those leaving prior to twenty years of any retirement benefits. In contrast, most federal, state, and local Government retirement systems permit those with five, ten, or fifteen years service to start drawing some retirement income at a later age such as 60 or 62.

c. Discharge of unneeded or undesired persons before completion of a full thirty year career in military service should be compensated for by lump sum settlement rather than by offering relatively young people lifetime retirement income. Such persons would still have their years of service credited towards retirement at a later age.

d. Retired military personnel subsequently employed under civil service should be compensated in the same manner as a civil service employee who continues to work for the Government after he is eligible for retirement. Namely, he should continue to earn retirement credits, but he should not be paid in total more than the approved civil service salary for the job he is doing.

e. The 50-some Government retirement plans should be consolidated into a single system which would include the military and all other Federal employees. Retirement credits among Government retirement systems should be fully interchangeable. Civil servants should not receive double retirement credit for time in the military, as presently is the case for military reservists. Conversely, military time creditable toward civil service retirement should continue to count throughout retirement instead of being eliminated at age 62.

f. Able Federal civilian employees should be encouraged to defer retirement until at least age 62. The existing rules for computing and adjusting retired pay discourage competent and dedicated people from staying on in Government who would otherwise continue working past age 55. The Government loses their expertise and wastes money. It would be cheaper to pay the good people a bonus to stay in Government after age 55 than it is to pay their retirement benefits plus the salary of their replacements.

g. A schedule should be established for fully funding all Government retirement funds on a "pay-as-you-go" basis so that future generations will not be saddled with today's retirement commitments. Budgeting on the basis of meeting only the current year's "pay out" requirements should be prohibited.

h. Agencies should be required to budget enough annually to cover the retirement pay liability for present and previous employees. The cost impact of changes in retirement benefits should be identified in the budget and specifically approved by Congress at the time authorized.

i. All Government retirement systems should be made contributory so that actual salaries and personnel costs are fully visible to the individual, the agency, and to Congress.

3. The above recommendations and the issues to which they pertain are discussed in more detail in the attached letter of 17 January 1978 from Admiral H. G. Rickover to Mr. Charles J. Zwick, Chairman, President's Commission on Military Compensation.

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C 20362

IN REPLY REFER TO
17 January 1978

Mr. Charles J. Zwick
Chairman
President's Commission on Military
Compensation
666 - 11th Street, N.W., Suite 520
Washington, D.C. 20001

Dear Mr. Zwick:

This is in response to your letter of 6 January 1978 which asked for my personal views on military compensation. My answers to the questions you raised are attached.

The fundamental question facing your Commission is what should be done to attract and retain a capable military force at a reasonable cost. In my opinion, this question goes beyond the area of pay, allowances, and benefits. It extends to issues affecting the efficiency of the Defense Department.

As explained in my answers to your questions, I believe the performance and morale of military people would be enhanced by eliminating unnecessary organizational layers and paperwork; by consolidating military activities; by reducing the number of officers, particularly flag rank and other higher rank officers; and by avoiding unnecessary personnel relocation.

I also believe it would be better for all concerned if military personnel were paid a given salary rather than having to operate under today's confusing system of pay, allowances and fringe benefits. A salary system would be simpler and more equitable than the present system. Military personnel as well as the public would then have a better appreciation of how much they are actually being paid. Salaries might also reduce public criticism of military benefits and help lessen the actual and perceived erosion of benefits among military people.

While shifting away from so many fringe benefits, we should encourage those military people we need most to pursue careers of thirty years or more. Those selected out of the military with five or more years service, should receive a lump sum payment and a smaller, deferred, retired pay starting at age 60 or 62. In addition, retired military personnel employed by the Federal Government should not be paid in total more than the approved Federal civilian salary for the job held.

In revamping military compensation, a phase-in period will be needed to avoid inequities. Most important, each change in the compensation system must be fair, and so perceived by those in and out of the military service.

If I can be of further assistance, please feel free to so request.

Sincerely,

H. G. Rickover
H.G. Rickover

Encl:
As stated

Copy to:
Chief of Naval Operations
Chief of Naval Personnel

# RESPONSE OF ADM H.G. RICKOVER TO QUESTIONS FROM THE PRESIDENT'S COMMISSION ON MILITARY COMPENSATION
17 JANUARY 1978

1. QUESTION: What military personnel management policies should be examined in conjunction with improving the military compensation system?

ANSWER: The President's Commission on Military Compensation cannot merely look at compensation alone. The fundamental problem is to decide what should be done to attract and retain an effective military force at reasonable cost. Consideration should be given to how the military services go about acquiring, training, transferring, promoting, and using military people. We cannot afford wasteful manpower spending at the expense of weapons.

I have testified many times that our military personnel structure is top-heavy with rank and that this contributes to inefficiency. At the peak of World War II there was one flag or general officer for every 6,000 men. Today there is one such officer for every 1,800 men. Stated differently, we could reduce the total of flag and general officers by two-thirds and still maintain the same ratio to military personnel we had at the peak of World War II. The staff of the Chief of Naval Operations now has about twice as many admirals as were assigned to Fleet Admiral King's staff at the height of World War II. While the acceleration of military technology has tended to increase the officer-to-enlisted ratio, I do not believe we need the large number of admirals and generals we have today. In fact, the large number of flag rank officers results in a decrease in efficiency.

I recommend reducing the overall flag and general officer strength ten percent each year for the next five years. Half of this yearly reduction should be through stricter selection, the other half through forced retirement of flag and other senior officers.

In my opinion, the elimination of unnecessary flag, general, and other high ranking officer billets would help the retention of our most capable officers. Further, there should be a concurrent reduction in staffs that would eventually reduce the officer and enlisted grade structure. These reductions would lead to the elimination of many military and civilian billets and might help put a damper on civil service grade inflation.

Another wasteful practice -- transferring military people from one location to another every year or two -- should be stopped. In 1977, the Defense Department spent $1.6 billion on personnel transfers. But this figure does not include the cost of time wasted in transit and in the relieving process.

In addition to the high cost, frequent personnel transfers are disruptive. They create hardships on military people and their families and foster mediocre performance. Often some of our best people leave the military to escape the disruption of moving their families so frequently. Moreover, with the high turnover rate, servicemen have insufficient time to learn their jobs. Rarely are they on a job long enough to see the results of their efforts or to be held accountable for them. Consequently, there is a premium on satisfying one's transient superiors and not "making waves." Officers become jacks-of-all trades. True responsibility for actions is never realized under the fragmented, short tour concept.

The officer postgraduate education program is another wasteful aspect of military personnel policy. For many years, the services have provided large numbers of officers with advanced degrees. The need for these degrees is not well-defined, and the courses that most officers take rarely relate to the needs of the service, except in a vague and general way. It is my opinion, from many years of service and experience, that few jobs in the Navy require a graduate degree, particularly in the non-technical areas where most naval officers conduct their studies. Postgraduate education has become, in most cases, a fringe benefit where an officer can, at Government expense, improve his credentials for a job after he leaves the military. Moreover, postgraduate schooling is widely perceived by officers as enhancing chances for promotion. So, regardless of the value of these programs or his interest in them, an officer must apply for these programs in order to "get ahead" -- to acquire "Brownie points."

Except for the few postgraduate courses that can be justified by the military, the service postgraduate education programs should be abolished. No industrial organization would be viable if it devoted a fraction of the time educating their officials as does the military; it is a boon-doggle.

The concept of an All Volunteer Force should also be reevaluated. It may be that no amount of pay and benefits will be sufficient to attract and retain an All Volunteer Force of the size and quality required. In March 1977, the Senate Subcommittee on Manpower and Personnel heard testimony about trends indicating poor military effectiveness: rates of non-judicial punishment have increased thirty-five percent since Vietnam-era levels; the rate at which servicemen are leaving before completing first enlistment has increased substantially; twenty-five to thirty percent of active enlisted personnel stated in a survey that they would try to avoid or probably refuse to serve in combat situations, depending on the nature of the emergency.

Each year, for the next fifteen years, the number of males in military age groups will decline substantially. It is unlikely that there will be further large increases in military compensation as there have been over the past decade. Thus, the problems of the All Volunteer Force can be expected to continue.

Some argue that the All Volunteer Force is socially preferable to conscription. They say that under the previous draft system, many young men of well-to-do families were able to evade the draft through deferments for higher education. A disproportionate number of draftees therefore came from the lower economic strata of society.

The All Volunteer Force practices a similar kind of economic discrimination. The high rate of unemployment among minorities and the poor has contributed to their carrying a disproportionate share of the defense burden.

If we cannot maintain an All Volunteer Force of the size and caliber needed, it may be necessary to require our citizens to serve a few years active duty in the military or some other form of national service. An impartially administered draft could help avoid inequities and might help the military obtain its proper share of educated people. Further, the military training they receive would be an invaluable asset in the event of mobilization.

2. QUESTION: What organizational and administrative changes should be made to get more from our military people in return for their compensation?

ANSWER: The effectiveness of the military could be enhanced by eliminating unnecessary organizational layers within the Department of Defense. Excessive layering is detrimental to performance and morale. Senior officials are too far removed from facts. The extra layers of management delay work, waste time, and dilute responsibility. Moreover, large numbers of people are required to staff the offices at each layer. In many cases, the "checkers" outnumber the "doers."

In the Navy, the Naval Material Command is a prime example of this widespread problem. About ten years ago, the Navy's material functions were reorganized along the lines of the Air Force. Four technical bureaus were eliminated and their functions assumed by six new "Systems Commands." Superimposed upon these systems commands was the office of the Chief of Naval Material, a new large bureaucracy which added more layers of management. This headquarters staff, referred to as the Naval Material Command, has since grown to about 600 people, one-third of whom are strictly overhead, existing only to support the office of the Chief of Naval Material itself. The Office of Management and Budget at one time recommended abolition of this Command.

If this investment in manpower actually improved the material condition of the fleet, I would be for it. But, the extra organizational layers added by the Chief of Naval Material have only made it harder to do the job.

Unnecessary layering also results in a proliferation of "motherhood" directives and policy statements that clog the system and divert attention from primary functions. For example, I recently received a proposed Navy directive regarding material reliability. It was written as if controls and management systems would solve the problems. Such directives lull senior officials into believing that improvements are being made; in fact they are generally not helpful. In the Navy alone, there are literally thousands of these directives. No one in a normal tour of duty has the time to read, much less understand them.

Unnecessary organizational layers exist at nearly every level within the Department of Defense. They should be eliminated and authority returned to those directly responsible for the work. Strict controls are needed to preclude the build-up of new management layers and their staffs. The coupling of authority and responsibility--a concept long espoused by the military--has been lost.

The undue reliance in the military on management information systems and systems analysis should also be stopped. The preoccupation with "management" in the Defense Department is stifling. At each level of the bureaucracy, people try to impress higher authorities by accumulating masses of information before making a recommendation.

Requests for this information are forwarded through the chain of command down to the lowest echelon technical manager. He then is required to translate actual situations facing him into "management information" forms prescribed by his superiors. By the time he answers all of the questions raised by the many principals and individual staff personnel, including the new breed of theoretical management experts, little time remains for him to actually manage his given job.

A working level manager faces countless people in staff positions in organizations senior to his own. Each of these can make demands on his time and require him to justify his actions. As a result, there are currently thousands of people--military and civilian--employed at headquarters levels within the Department of Defense, preparing, typing, copying, and distributing volumes of management reports which necessarily receive only a cursory review before being filed. Large numbers of personnel could be removed from such staffs. Not only would there be no loss in efficiency, in actuality, the elimination of senseless "paperwork" studies and reports would enhance efficiency.

What I have just said is a truism, and is recognized in all business organizations, where profit is the guiding motive. But not so in Government, which appears, in measure, to conceive its function, as an agency to employ those not needed by business. For some Government organizations this may do little harm; for the military it can be deadly.

Manpower requirements could be further reduced by consolidating and unifying military shore establishments. Why is it necessary to have both a Naval hospital and an Army hospital in the same city? An airfield for the Navy and another for the Air Force? Military training commands, supply management, and inventory control offices, and other shore establishments could be combined, with a savings in personnel requirements and other resources resulting.

3. QUESTION: There has been much talk among the military about a continued erosion of military benefits. What are your views on this matter?

ANSWER: Special interest groups, which naturally favor the status quo, and the military press have given widespread coverage to cutbacks in military benefits and their adverse impact on morale and retention. Military people are said to be particularly concerned about deterioration in military medical care and civilian health services and about the possibility of reduced retirement, commissary, exchange, and recreation benefits. Our servicemen purportedly believe that they are losing ground and are apprehensive about the security of a military career.

Except for medical care, the actual cutbacks in military benefits are more perceived than real. In July, 1977, the Senate Armed Services Committee conducted hearings on unionization of the Armed Forces. The report of those hearings lists the actual benefit changes during the past five years that affect service members, their families, and those retired. From this report, it appears that the reductions in military benefits have been more than offset by changes economically advantageous to military people.

It is difficult to determine the actual economic impact of changes in military benefits, because of the many different benefits available to various categories of people in differing amounts, depending on particular circumstances. It is difficult for the Department of Defense, Congress, or the serviceman himself to assess the actual monetary value of these benefits or to quantify proposed changes. The complexity of the military compensation system has made it vulnerable to public criticism and piecemeal attacks on various benefits. The well-publicized talk of potential cutbacks, as well as a few actual cutbacks in some areas, have in turn created in the minds of military personnel the exaggerated perception of a continued erosion of benefits.

The military compensation system would be far less subject to attack and more attractive to servicemen if the military converted to a salary system. This would be easier for the individual, the public, and the Government to understand.

4. QUESTION: The Commission has been told that maintaining a professional, motivated, and disciplined military force requires preserving the institutional character of military life through continuing traditional benefits such as Government housing, military health care, food, commissaries, exchanges, recreation facilities, and early retirement. Do you agree?

ANSWER: I see no necessary connection between the present form of military compensation and the maintenance of a top-notch fighting force. In fact, if we provided more pay in lieu of the large number of traditional fringe benefits, I believe we would have a more highly motivated and professional fighting force. I question that providing many services for military people and their families truly encourages the self reliance one wants in military personnel.

By joining the service, military people knowingly surrender some of their personal freedoms. They agree to accept assignments that may result in undesired duty, separation from family, long working hours, injury, capture, even loss of life. It is not possible to put a dollar value on some of these considerations. There is no valid rationale why a compensation system based on pay, allowances, and benefits is more appropriate in these circumstances than a salary system.

5. QUESTION: Where should military compensation levels be set in relation to pay in the private sector? Do you believe that current military compensation is comparable to pay in the private sector?

ANSWER: Given the problem of placing a value on military benefits, I cannot say with any certainty that the military is paid less, as much as, or more than their civilian counterparts. However, with the advent of the All Volunteer Force, it has been the expressed intent of Congress that military pay keep pace with civilian compensation.

Among those who study the subject, there seems to be a consensus that since about 1972, military pay -- consisting of basic pay and allowance for quarters and subsistence -- has been equivalent to civilian pay. In fact, a recent Senate Appropriations Committee report concludes that military pay is at least equal to civilian salaries and that, when fringe benefits are added to both military and civilian pay, the average military employee receives over four thousand dollars more annually than the civilian employee.

Since 1972, legislation has been enacted to help keep military pay in line with civilian pay. However, the method used is indirect. Military increases have been tied to civil service pay raises; these in turn are pegged, via a complex formula, to pay in the private sector. The validity of indirectly pegging military raises to the private sector has been the subject of considerable debate. Some argue that military compensation should be strictly competitive with that in the private sector. This would mean that the military should be paid whatever is necessary to attract and retain the required number and caliber of people over a long period. I agree. But this should be done in a manner that avoids frequent wide pay fluctuations.

A method similar to that used to tie Federal civilian pay with pay outside Government should be used to evaluate military pay levels in relation to those outside the military. Pay levels determined in this manner could be used as a guide in adjusting military pay schedules. To meet recruiting and retention requirements, it may, at times, be necessary to peg military pay for scarce skills somewhat above civilian compensation. The higher pay should be reserved for the special particular skills needed, and made applicable only as long as the shortage exists. Special pay should not be granted automatically as a form of recognition. For example, I see no valid reason why, in the absence of a bona fide shortage, pilots should continue to receive flight pay.

6. QUESTION: What deficiencies, if any, do you see in the existing structure of pay, allowances, and benefits? What changes do you recommend?

ANSWER: The major deficiency in our present military compensation system is its complexity and the fact that servicemen and their families cannot determine how much they are actually paid. Prior to World War II, the military constituted a small number who received low pay and liberal benefits. That system has survived. In it, the serviceman considers as part of his compensation, basic pay, tax free allowances for food and housing, military medical care for dependents, early retirement benefits, subsidized commissaries, exchanges, recreation facilities, etc..

Each of the many types of in-kind, contingent, and deferred benefits has its own entitlement rules. As a result, Department of Defense and General Accounting Office studies show that military people underestimate their total compensation. Since the value of fringe benefits is not visible in his earnings statement, his compensation appears to be small relative to his civilian counterparts. On this basis he may consider himself underpaid. Conversly, because a serviceman receives so many fringe benefits, the public may perceive him to be overpaid.

The tendency to compensate the military on the basis of "needs" rather than contribution to national security, proficiency skills, and manpower shortages, should be reevaluated. The military is virtually alone in its practice of calculating pay based on marital status and number of dependents, and in providing medical and commissary services where they are available commercially.

When a large part of a serviceman's compensation consists of fringe benefits, he must confine himself to the housing, medical care, shopping, and entertainment offered by the Government or he loses that portion of his compensation. Many servicemen would prefer their compensation in dollars so they could avail themselves of commercial facilities.

Compensation through benefits also tends to be inequitable. Where adequate Government housing, military medical care, commissaries, exchanges, and other facilities are available, the military man enjoys a substantial advantage over his counterpart on duty where such facilities and services are not available.

In 1966, the Hubbell Commission recommended converting the military to a salary system. This was also advocated in a Department of Defense study by the Brookings Institution in 1975; by the Defense Manpower Commission in 1976; and by the General Accounting Office in 1977. Those opposed contend that salaries would substitute marketplace standards for the institutional customs and traditions of military service, undermine morale, and hurt combat effectiveness; that salaries would be more costly and result in less take-home pay since a greater proportion of a serviceman's compensation would be subject to income tax.

Because the cost of many benefits are now buried in other parts of the budget, it is true that the apparent cost of military pay would increase under a salary system. However, true costs would not necessarily increase; in fact, they might be less.

Those opposed to a salary system often point to the difficulties Great Britain and others have with military salary systems in recruitment and retention. The fact that the United States faces similar problems shows that changing the form of military compensation does not, of itself, automatically eliminate these problems. It is my opinion that change to a salary system would simplify the problem of military compensation and be more equitable.

Specifically, I recommend:

1. Quarters and subsistence allowances and associated tax benefits should be eliminated and included in salaries.

2. Members of the military occupying Government quarters should be charged closer to their fair market value. The Government should, over the years, minimize its role of providing housing.

3. Subsidized commissaries, exchanges, and recreation facilities should be phased out except where commercial facilities are not available.

4. Military dependent medical care should be phased out and replaced by civilian health insurance programs similar to those available to Federal civilian employees. Military medical personnel and facilities should be kept at the minimum level required to provide initial wartime medical care for military personnel.

5. To retain people in hazardous, arduous or undesirable duty, or those having scarce but essential skills, bonuses or special pay should be provided -- but only during the time recipients are actually providing the needed services. Each military service should have the flexibility to adjust such special pay or bonuses to meet changing manpower needs. Basic military salaries should not be set at a level which compensates all military people for the hardships or risks incurred by a few.

In revising the military compensation system the Government should not break faith with those already in the service. Therefore, the approximate value of benefits abolished, as recommended above, should be reflected in the salaries paid. This should result in a more understandable, measurable, and effective compensation system.

7. QUESTION: A twenty-year retirement is often defended as necessary to maintain a young and vigorous fighting force. Do you think the military services have placed undue emphasis on youth? Is the twenty-year retirement a good tool for keeping the right people in the military?

ANSWER: By allowing retirement with but twenty years service, the military retirement system is considerably more liberal than the Federal civilian retirement systems and nearly all private industry programs. Industry, state, and local governments generally start paying retirement benefits at age 60 to 65, depending on the number of years served. Civil Service pays retirement benefits at age 55 if the employee has 30 or more years of service; at age 60 after 20 years of service; and at age 62 with 5 years of service.

At one time, the liberal military retirement provisions were thought to be compensation for low pay relative to the private sector. Today, military pay is generally considered equal to civilian pay. Yet the right to early retirement and a lifetime retirement income remain.

Early retirement is being defended as a reward for the hardships of military life. I agree that military people must not be treated as second-class citizens economically or otherwise; that they should be paid adequately for performing duties unique to the military--for combat and other hazardous situations--and for arduous or undesirable duty. Such special compensation should be provided as specifically and directly as possible. But it does not follow that the best interest of the military or of the public is served by continuing costly retirement practices which do not accomplish this purpose.

It is inefficient and wasteful to provide all members of the military the option of a lifetime retirement income after but twenty years service. It makes more sense to provide special pay to those who perform unusually difficult or hazardous duty during the times they are actually engaged. I greatly doubt that to a young person the promise of retirement income twenty or thirty years hence provides as much incentive per dollar spent as special pay would provide, or is even a real motive for entering the military. This is a rationalization that comes with age--particularly by those who are not capable of fending for themselves and so devote their time to the nuances and intricacies of the pay system. I doubt people such as these possess the characteristics which lead to the development of a good warrior--or of any worthwhile endeavor.

Trying to enhance the attractiveness of the military through liberal retirement benefits may be far less effective per dollar spent than simply increasing salaries. As I noted earlier, one reason the military man believes he is underpaid is that although his total pay and benefits are in line with outside compensation, his pay check is smaller than his outside contemporaries'. In my opinion, the morale of the military would be better promoted by higher salaries than early retired pay. This is especially true of the young and energetic.

It has been said that war is a young man's business and that offering twenty-year retirements with lifetime retired pay helps maintain a young and viable military. Actually there are today few duties in the military that cannot be performed by persons up to 55 years of age or even older. For jobs requiring special demands, there should be qualifications, as there are for underwater demolition teams. For duties requiring extra risk or physical hardship, differential pay is more appropriate than increased retirement benefits for the entire military.

Twenty-year retirement is sometimes defended as necessary to thin out the ranks and enhance promotion opportunities. It is questionable that early retirement is the most appropriate way for this. Existing rules, which require at least twenty years service before earning the right to retired pay, at any age, make it difficult to discharge those unwanted or unneeded before they complete twenty years. There is an understandable reluctance to separate a person after, say 10 to 15 years service, since he would then not be eligible for any military retirement benefits at any age. Consequently, we retain marginal people who bide their time aimlessly in the military until they complete twenty years service and can draw retired pay. These set a poor example to their juniors.

Twenty-year military retirement provides some marginal people the incentive to remain in the military; it also provides the incentive for many of the better ones, those who can make out on the outside--to turn to civilian careers immediately upon completion of twenty years service.

An article in the Navy Times in December, 1977 states that fifty-two percent of military officers eligible to retire, and seventy-five percent of the enlisted force, leave by their twenty-third year. No doubt, some would probably have retired sooner had they not been recently promoted and required to remain in the service for another tour of duty.

A retirement system that leads to widespread early retirement, that encourages the best to leave after but twenty years and marginal people to remain, is not sound for maintaining a military force of the proper size and caliber.

8. QUESTION: What changes should be made in the military retirement system? What should be considered a full career? When should retired pay commence? How should retired pay be budgeted? Should the retirement system be contributory?

ANSWER: The practice of the military to begin receiving retired pay after but twenty years of service should be phased out. Rather than an effective device for attracting and retaining the right people, early retirement is inefficient, counterproductive, inequitable, and costly.

The twenty year retirement encourages marginal people to stay for twenty years and the best to leave after but twenty years. The option of retiring after twenty years denies the military sufficient flexibility to retain those desired and to separate those no longer needed or wanted. The existing system deprives those leaving prior to twenty years of any retirement benefits, and provides severance pay only to officers involuntarily separated. In contrast, most federal, state, and local government retirement systems permit those with five, ten, or fifteen years service to start drawing some retirement income at a later age. Depending on the number of years served, retirement pay starts at 62, 60, and in some cases 55. Under the Pension Reform Act of 1974, private industry retirement plans offer a deferred retirement income on completion of at least five years -- in some cases ten years -- of service. Such retirement pay is much smaller for those retiring early than for those with full careers. Allowing people to earn the right to deferred retirement income with less than a full career alleviates problems associated with separation of those unwanted or unneeded. Similar arrangements would benefit the military.

Those leaving before completing twenty years service lose their military retirement benefits and are not permitted to fully transfer retirement credits to other federal retirement programs. Today, military time is counted toward civil service retirement and used initially in calculating retired pay. Because of a quirk in the law, all military time does not count in the calculation of civil service retired pay received after age 62. At that age, the civil service retiree loses all civil service retirement credit for time spent in the military after 1956, and gets instead a social security annuity for those years. During his time in civil service he does not come under the social security program. Therefore, he is generally entitled only to minimum social security payments based on contributions he made earlier while in the military. The effect is that federal employees with prior military service receive a lower retired pay after age 62 than they received from age 55 to 62. This anomaly should be corrected.

On the other hand, civil servants in the military reserve should not get double retirement credit for military service. Under present rules, a reservist's active duty time is credited toward civil service retirement. It also counts toward eligibility for military retired pay at age 60. Thus, years of active duty are counted twice -- once for civil service retirement and once for a military retirement. This loophole should be eliminated.

In examining problems of retired pay, the deteriorated financial condition of retirement programs in government and in business becomes obvious. Several months ago, the New York Times reported that 55 Federal Government retirement funds have a projected deficit totaling $350 billion dollars. The Navy Times recently reported that the military retirement program deficit constitutes between $160 billion and $200 billion. The Washington Post reported in 1977 that America's 100 largest industrial corporations have promised their employees $38 billion more in pensions than the companies have put aside to meet these requirements.

The unfunded liabilities of the military retirement system are so large because the Defense Department has no military retirement fund from which to meet its obligations. Instead, it includes in its annual budget only enough to cover retirement to be issued that year. When the press states that military retirement costs have increased tenfold since 1964, and are approaching 10 percent of the entire defense budget, these figures represent but a fraction of the full cost of military retirement.

Another reason for the large unfunded liability in the military retirement system is that it is non-contributory. The Civil Service retirement system and the retirement plans offered by most state and local governments and by private industry generally require employees to contribute from 3 to 8 percent of salary to the retirement fund. The employer also contributes to the fund. Under the military retirement system, the Government alone funds the retirement program. There are no deductions from military pay for this purpose. Without employee contributions, the unfunded liability of the retirement system is much larger than it would otherwise be.

For the short range, Government agencies have a strong incentive to fulfill their needs in ways that have minimum impact on current budgets. Thus, the promise of liberal retirement benefits can be used immediately for recruiting purposes. But the full cost of these benefits is not included in the Defense budget where it would have to compete with weapons programs for available funds. The result is that neither Congress nor the public sees the cost of these hidden benefits until later years when it is too late to do anything about it. We now begin to see the effects. Unless prompt action is taken to set aside funds to meet future retired pay commitments, future Congresses will be faced with the funding of overwhelming retirement commitments.

The finances of the Civil Service Retirement Program are handled differently than those of the military retirement system. Under the Civil Service System, each Government agency budgets funds to match employee retirement contributions. Also, Congress is supposed to appropriate funds sufficient to cover increases or new laws which change retirement benefits. To date, however, the Government has not been budgeting for, or making, full payments to the Civil Service Retirement and Disability Fund. Similarly, the federal budget does not reflect the current value of the expected increase in liabilities resulting from inflation. As a result, according to Civil Service Commission figures, the unfunded liability of the Civil Service Retirement and Disability Fund -- the largest of the federal civilian retirement systems, has increased from $53 billion in fiscal 1970 to $150 billion in 1976.

The main purpose of a retirement program should be to take care of those no longer employable. This could be served more effectively and efficiently by consolidating the various retirement plans into a single retirement system for the entire Federal Government, with the retirement credits earned in any part of the federal service fully transferable to any other part. Agencies should not be permitted to compete with each other for personnel by using differences in retirement benefits. Varying conditions of employment, hazards, and so on should be handled directly through salary differentials, lump sum payments, or similar direct means. Such direct payments can be more readily assessed by Congress and the agencies and more properly administered from a financial standpoint. Too often the benefits of various retirement programs have been so obfuscated that even the individual hemself has no appreciation of his true earnings. Given that military retirement payments alone are budgeted at over ten billion dollars for fiscal year 1979, it is clear that action must be taken to fully reflect all retirement costs in the budget and to place all retirement programs on sound financial footing.

The high cost of our military retirement system combined with its ineffectiveness, inefficiencies and inequities, dictate the need to start phasing out the present system and replacing it over the next several years. Ultimately, military retirement should be included in a single Federal retirement program for all employees of the Federal Government. My specific recommendations are as follows:

1. A thirty year military career should be required -- except for those disabled or otherwise not meeting the needs of the service. This will improve readiness and necessitate less initial training.

2. To improve personnel management flexibility, those with five or more years service who are passed over or selected out prior to completing thirty years should be entitled to retired pay starting at age 62 with less than twenty years service, or at age 60 with more than twenty years. Such retired pay should be based on number of years served. A lump sum payment would be proper in such cases to ease transition to private life. Those who continued to meet military requirements and needs would serve the full thirty years or until age 55 before being eligible to receive retired pay.

3. The military retirement system should be contributory so that actual personnel costs are fully visible to the individual, the Executive Branch, and the Congress.

4. A schedule should be established for creating and fully funding a military retirement fund so that future generations will not be saddled with today's retirement commitments. Budgeting on the basis of meeting only the current year's "pay out" requirements should be prohibited. I understand that the Department of Defense may so recommend in the near future.

5. The military should be required to budget enough annually to cover retirement pay liability for present and previous servicemen. The cost impact of changes in retirement benefits should be identified in the budget and specifically approved by Congress at the time authorized.

6. The 50-some Government retirement plans should be consolidated into a single system which would include the military and all other Federal employees.

   a. Retirement credits among Government retirement systems should be fully interchangeable. Civil servants should not receive double retirement credit for time in the military, as presently is the case for military reservists. Conversely, military time creditable toward civil service retirement should continue to count throughout retirement instead of being eliminated at age 62.

   b. All Government retirement systems should defer retired pay until at least age 55. Our citizens should not be encouraged to believe they can expect a salary and retired pay during their working years.

c. All Government retirement systems, not just the Civil Service Retirement System, should provide rights to a deferred retirement income of some amount, with payments starting at age 62, for persons who have served a prescribed minimum time, say 5 years.

d. Consolidation of all Federal Government retirement programs should not be used to further delay reforming military retirement rules.

In revamping the military retirement system, the Government must not break faith with those who have committed themselves to a career with the understanding that certain benefits would accrue. Therefore, changes should provide a phase-in period designed to avoid inequities. Most important, whatever retirement system the Commission on Military Compensation recommends, the system must be fair -- and perceived to be fair -- by military and civilians.

9. QUESTION: What changes should be made to dual compensation provisions?

ANSWER: In 1977 testimony before the House Committee on Post Office and Civil Service, I stated that further restrictions on dual compensation are required. Dual compensation refers to the practice of drawing a Government salary and Government retired pay simultaneously, usually by retired military personnel in civil service jobs. This practice has increased substantially during the 1970's to the point that today over 140,000 people, comprising five percent of the entire federal civilian work force, are "double-dipping," that is, receiving dual compensation. In addition, there may be as many as ten retired generals and admirals each of whose combined military pension and federal civilian salary exceed the total salary paid the Vice-President or Chief Justice of the Supreme Court, and as many as 25 more who receive more than the members of the President's Cabinet.

From these figures, it is evident that although the most startling cases involve retired flag-rank officers, the problem of double-dipping also involves lower ranking officers and enlisted men. The problem is not simple. Historically, Congress has approached it from various directions.

In 1894 Congress passed a law providing that no person could hold two Federal Government offices if the salary attached to either was $2,500 or more. At that time, Congressmen earned $5,000 and the equivalent of today's top civil servants $2,500. The 1894 law applied only to regular military officers; reserve officers, enlisted regulars, and enlisted reservists were exempt, as were elected officials and those appointed with Senate confirmation. When the law was enacted, it affected only 390 retired officers--lieutenant commanders, majors, and above. These officers were prohibited from holding other jobs in the Federal Government. In 1924 the law was amended to include officers retired for disability in the line of duty.

In 1932 another law was passed, and subsequently amended in 1956, to permit regular officers and certain "temporary" officers retired for "noncombat" disability to hold another Government job providing their combined federal income did not exceed $10,000 annually. No restriction was placed on reserve officers and enlisted.

By 1963, there were over 40 different laws and about 200 separate Comptroller General decisions involving dual compensation. To eliminate the confusion, a Dual Compensation Bill was introduced and referred to the Post Office and Civil Service

Committee. The intent of the original bill was to permit hiring any qualified military person; to simplify conflicting statutes; and to treat all military equally--regular, reserve, officer, or enlisted. As finally passed, however, the Dual Compensation Act of 1964 restricted the pay of regular officers only, not the pay of reservists or enlisted. It liberalized earlier laws by permitting a retired regular officer to draw a full civil service salary and a reduced retired pay consisting of the first $2,000 of his military retired pay, plus half his remaining retired pay in excess of $2,000. This $2,000 figure is subject to cost of living increases; the figure is now about $4,200. In other words, a retired regular officer, employed in the Civil Service, forfeits half his military retired pay in excess of $4,200. There is no reduction of retired pay for reserve officers or retired enlisted personnel in civil service jobs.

The Civil Service Commission has authority to waive the Dual Compensation Act for retired regular officers. Also, because of the apparent shortage of qualified people in 1964 to meet the then urgent needs of the space program, the National Aeronautics and Space Administration (NASA) was provided statutory authority to exempt 30 NASA jobs from the restrictions of the Dual Compensation Act. With the NASA exemptions and the Civil Service Commission waivers, there are now some 42 retired admirals and generals drawing their full military retired pay as well as their full salary as Federal civilian officials. A retired four-star admiral or general with a waiver of the Dual Compensation Act can be employed as a GS-18 and paid $83,000 per year by the Government.

In my opinion, there should be no waivers or NASA exemptions from the Dual Compensation Act. These loopholes benefit only a small group of retired senior officers, generally those who happen to have been in positions of influence prior to retirement. It is difficult to believe that their services, past or present, warrant federal pay greater than a U.S. Senator's salary. It is inconceivable that any retired military officer can be so vital to a Government agency that his job could not be filled with another fully qualified person willing to work for the salary that position commands.

Another form of double-dipping falls outside existing restrictions on dual compensation. This occurs when retired Government personnel--civilian or military--draw retired income from the Government but use their influence with former co-workers to obtain a lucrative salary through Government contracts for consulting services, studies, or other special projects. For example, a Navy officer who has become an expert in some area--entirely at Navy expense--starts drawing retired pay from the Navy after but twenty years of service, and also sells his expertise back to the Navy under a consulting contract or under a study contract with a "think tank."

There are many cases where the Navy contracts for special studies on the basis that the Navy itself does not have sufficient expertise. These contracts go to "think tanks" that assign retired officers to the job as "experts." Thus, we have a curious phenomenon--an officer becomes sufficiently expert to perform Navy work only after leaving the Navy. This is a problem which in equity to the Government warrants attention.

Even when the pay restrictions of the Dual Compensation Act are applied, many retired military people draw combined incomes far in excess of their civilian pay. It is difficult for their civilian counterparts to understand why retired military people should receive a much larger income from the Government when doing the very same job.

The Dual Compensation Act reduces the pay only of retired regular officers. This group constitutes less than 4 percent of the 141,000 retired military working as federal civilians. Over 96 percent of these so-called double-dippers are reserve officers or former enlisted men who, being exempt from the Dual Compensation Act, receive their full civilian pay plus their full military retired pay, with no reductions. Restricting dual compensation is a sound concept as a matter of public policy. The principle should be applied across the board.

In private industry, and elsewhere in Government, employees do not receive full retired pay as well as a full salary from the same employer. If civil servants continue to work for the Government beyond the date at which they are eligible to retire, they can draw no more than the pay prescribed for the position held. However, they continue to earn retirement credits. The same principle applies in most retirement plans used in private industry. It should also apply to retired military personnel who work for the Government.

The United States has no moral commitment or obligation to pay a full civilian salary plus retired pay to military personnel. This is particularly so in the case of new hires. Some exceptions to dual compensation restrictions may be appropriate in the case of retired military currently in the employ of the Government. But as a matter of public policy, no Government agency should have to depend on retired military personnel to staff its organization. Frequently, filling vacancies with persons drawing Government retired pay demoralizes career civil servants who might otherwise have had a chance to fill these positions. Military persons drawing retired pay have the option of seeking employment outside the Government if restrictions on dual compensation are not to their liking.

The main purpose of a retirement program should be to take care of those no longer able to work. As such, I have several recommendations for strengthening the Dual Compensation Act. Specifically:

1. Waivers of the Dual Compensation Act should be prohibited. There is no valid justification for the Government to pay some retired military officers combined civil service salary and military retired pay greater than the salaries paid to the Chief Justice of the Supreme Court, the Vice President, and Members of Congress.

2. Dual Compensation restrictions should apply to all retired military personnel--regulars, reservists, officers, enlisted. There is no valid reason to discriminate against regular officers in applying dual compensation restrictions.

3. Retired military personnel subsequently employed under civil service should be compensated in the same manner as civil service employees who continue to work for the Government after being eligible for retirement. Namely, they should continue to earn retirement credits, but should not be paid in total more than the approved civil service salary for the job.

Implementing the recommendations I have made would result in substantial progress toward restoring the American people's confidence in Federal military and civilian retirement programs.

## C. SHORTCOMINGS OF THE CIVIL SERVICE REFORM ACT

The Civil Service Reform Act took effect in January 1979. Two principal provisions of the Act dealt with creation of the Senior Executive Service and the Merit Pay System.

A stated objective of the Senior Executive Service was to create an improved cadre of senior career personnel holding top positions in the Federal Government. Several aspects of the system were modeled after personnel policies in the private sector (e.g., members of the Senior Executive Service must serve without tenure and their continuation is subject to annual review). A complex system was established requiring these senior executives to prepare goals and objectives in a prescribed administrative format and to complete a series of "management" training courses.

The compensating factor to "woo" career senior civil servants into the Senior Executive Service was a plan that approximately 50 percent of the personnel in the program would annually be eligible to receive bonuses for above average to excellent performance. For primarily this reason, essentially all civil service career personnel in grades 16 through 18 joined the Senior Executive Service and patiently proceeded through all the extra administrative and training exercises necessary to be a member. Subsequently, after this was all in place, the Congress perceived that the annual bonuses would be used to over-reward favored employees within an agency. Congress reduced the number of people eligible for bonuses to 25 percent, told the Office of Personnel Management (OPM) that "Big Brother is watching you," and OPM subsequently trimmed the number eligible for bonuses to 20 percent. This action further compounded the problem. Distribution of bonuses within many Departments favored the senior people on Secretarial staffs and caused many of the important operating organizations to get less than their proportional share of bonuses for their key people.

In addition, continuation of the current salary ceiling for senior executives now causes personnel at the supposedly distinct levels within the system to receive the same pay, which was never the intent.

The net effect is a great deal of apathy toward the Senior Executive Service system among its members. They are now required to do a great deal of extra paperwork for no real compensatory benefit. Similarly, the effort to accomplish personnel actions within the Senior Executive Service system has doubled in complexity within most agencies. New personnel groups have been established just to administer this new system. The Senior Executive Service needs a critical look and overhaul or abolishment. It forces an undesirable discrimination in many operating organizations where all of the members of the Senior Executive Service are highly qualified people. The inspiration to achieve a bonus should not be the principal motivation to do a good job, because any bonus system has the potential for cronyism. Rather, the problem should be solved by eliminating the current salary ceiling which is inconsistent with comparable jobs in the private sector, establishing a staggered pay schedule level for career senior executives that adequately compensates the people for work done, and eliminating the bonus system.

The Merit Pay System has similar shortcomings. Essentially all GS-13, 14, and 15 personnel in management or supervisory roles must now complete a mass of paperwork and be subject to an annual determination for the amount of merit pay increase they may receive in addition to a fixed cost-of-living increase. The system requires that the merit pay increases be graded among people in a given operating unit such that some must receive less than others even though the work of all may be uniformly good. In fact, under this Merit Pay System a supervisory person at a given grade may end up receiving less pay than individuals whom he supervises, who may be at or near the same grade level as the Supervisor. The system is a nightmare to administer. Procedures have not been worked out in detail by many agencies and will potentially create a large amount of hate and discontent among the individuals participating within the first Merit Pay System determination made on October 1, 1981. A review of the effectiveness of the Civil Service Reform Act should seriously consider scrapping the whole Merit Pay System.

## D. EDUCATION AND TRAINING OF NAVAL OFFICERS

The Reagan Administration has announced a major expansion of our Naval shipbuilding program. No matter how well these ships are designed and built, the Navy is still vitally dependent on having a sufficient number of capable officers and enlisted personnel to safely operate these ships. This is particularly true in areas requiring special expertise such as nuclear propulsion plants and sophisticated weapons systems. In 1980, of the approximately 2500 newly commissioned male unrestricted line officers entering the Navy, 28 percent came from the Naval Academy and 34 percent came from the Naval Reserve Officer Training Corps (NROTC). The current average total cost to educate a midshipman at the Naval Academy for four years is approximately $100,000; this is slightly less than reported costs for the other two major service academies. In the NROTC scholarship program, the Navy spends an average of about $40,000 to $50,000 for education and training of a prospective naval officer; costs vary depending on the tuition and other costs for the 55 colleges and universities participating in the NROTC program.

The Navy is not being a good steward of its investment in these young people who are the principal source of career officers:

- Midshipmen are allowed to resign from the Naval Academy or the NROTC program with no further service obligation after the Navy has already provided them with two years of free education. It would be difficult for the government to recoup the funds invested from those who resign but, as a minimum, they should have a residual obligation of several years of service as an enlisted person. Such a rule would undoubtedly reduce the midshipmen resignation rate and ensure that more of the highly-qualified students complete their Naval Academy or NROTC education and as Naval officers.

- The minimum obligated service time - five years for a graduate of the Naval Academy and four years for a graduate of the NROTC program - has not been increased in recent years. With the increasing value of a college education at government expense, it would seem prudent to consider increasing the length of obligated service so that the Navy gets more return on its investment and reduces some of its current short-fall in the number of qualified officers.

- The Navy is a technically oriented service and should have officers with sufficient technical backgrounds to better do their jobs. The current policy is that 80 percent of those enrolled in the Naval Academy and the NROTC scholarship programs should pursue technical majors. However, the people managing these programs loosely interpret this rule by labeling as "technical" many majors other than in engineering and the "hard" sciences. Current policies need to be reexamined to best meet the needs of the service, not the needs of the individual.

The above comments apply to our investment in education and training of Naval officers; similar problems undoubtedly exist in the other branches of service.

The higher costs for education at the service academies are typically justified on the basis that the retention of its graduates as career officers is twice that of graduates from the NROTC colleges and universities. If the government is going to continue to pay these high costs for education of prospective officers in our service academies, the curricula and policies of these institutions should be critically examined to assure that we are getting the quality of technically educated and trained officers needed to cope with the increasingly sophisticated technology being used in our military equipment and weapons systems.

## E. SHIPBUILDING CLAIMS

1. Contractor claims have been a major problem in Defense contracting, especially so in the case of Naval ship construction. Before their settlement in 1978 large shipbuilding claims against the Navy totalled $2.7 billion.

2. Some shipbuilders have discovered there are two ways to make a profit on a contract. The traditional way is to manage the job well and keep expenses down. The other way is to let costs come out where they may and to focus attention on getting the Government to pay any shortfall in desired profits by submitting claims and padding the price of contract changes.

3. Rather than discourage frivolous claims through strict enforcement of contract provisions and regulations, the Defense Department has shown a tendency to accept part of the blame for contractor inefficiency and to seek ways of providing financial relief to shipbuilders who overrun their contracts.

4. The claims problem is compounded by the fact that there are few qualified suppliers. Since the low bidder gets the work and since the Government has indicated a willingness to bail out poor performers, a contractor may conclude it is to his advantage to "buy in" on a contract and later reopen the contract price through changes and claims.

5. In this environment, fixed price incentive type contracts and competitive bidding are meaningless. For example, Electric Boat, in direct competition with Newport News, has been awarded 13 of 20 SSN 688 Class submarines on the basis of submitting the low bid. Yet Electric Boat has proven to be the high cost performer. On the average the first five SSN 688 Class submarines at Electric Boat have cost 50 percent more than the first five such submarines at Newport News, despite the fact these ships were built in roughly the same time frame and to the same designs.

6. For the first five SSN 688s at each yard, Electric Boat has expended 26 percent more labor hours than Newport News. For the next five submarines at each yard it appears that Electric Boat will be expending 31 percent more labor hours than Newport News.

7. Electric Boat has experienced extensive quality control problems and ship delays on its TRIDENT and SSN 688 Class submarine contracts. The shipbuilder has advised it will be submitting claims under the insurance provisions of the contracts to get the Government to reimburse the cost of these problems.

8. Congress has mandated that the Navy enforce contract provisions to require prompt identification and settlement of claims. Some major shipbuilders and the shipbuilders' lobby are fighting the Navy's efforts to incorporate in new contracts

provisions that would be effective in keeping contracts current. Shipbuilders have the upper hand in shipbuilding contract negotiations since there is usually little or no competition and the Navy is anxious to get the ship under contract. For example, in the negotiations for the recently awarded contract for TRIDENT follow ships, Electric Boat - the Navy's sole source for TRIDENT submarines - successfully demanded that a loophole be added to a contract provision that was designed to preclude the shipbuilder from saving up claims for submission long after the events allegedly giving rise to them. As a result, the shipbuilder can get around these requirements by submitting claims based on a theory that Government actions on the contract impacted other contracts - a theory for which contractors have long sought recognition by the courts.

9. I have the following recommendations with regard to the shipbuilding claims problem:

a. OMB should seek legislation which would allow the Government to award major contracts to other than the low bidder when the head of a department concludes a contractor is "buying in" or that the ultimate cost to the Government will be lower by going to other than the low bidder.

b. OMB should require that agencies settle problems with contractors prior to submission of their budget to OMB. In particular, agency heads should be required to certify in support of their annual budget requests that the agency has agreement with its potential major suppliers as to the terms and conditions that will be employed and further that such terms and conditions provide appropriate protection against large, after-the-fact claims.

c. OMB should sponsor legislation to stipulate that no funds authorized by Congress may be used to pay any claims against Naval shipbuilding contracts for events that occurred more than six months after the event allegedly giving rise to the claim. That would encourage prompt identification of claims.

d. OMB should sponsor legislation to prohibit the expenditure of Defense appropriations for so-called cross-contract impact claims. There is no way to administer contracts properly if every time the Government authorizes a change on one contract, it subjects itself to "impact" claims on other contracts.

e. OMB should urge Congress to enact a statute prohibiting the Government from adjusting the price of any contract to correct contractor deficiencies in material and workmanship. Similarly, the Government should be prohibited from reimbursing insurance premiums a contractor incurs on a policy that would compensate the contractor for correction of his own defective materials and workmanship.

f. To eliminate one of the strongest deterrents to prompt claims settlements, OMB should request that the Securities and

Exchange Commission prohibit contractors from booking claims as revenue in financial reports to stockholders. Presently management can assign a value to unsettled claims and then count this as revenue and an asset. The ability to record income from unsettled claims provides a disincentive to settle claims on their merits as a loss must be reported if the settlement is less than the amount management has booked.

g. OMB should endorse the notion that if the Government is unable to enforce shipbuilding contracts, the Navy should contract for exclusive use of our major shipyards, allocating work to shipbuilders as best meets the Navy's needs and paying their actual costs plus a flat management fee. The amount of fee would be established at the outset with no provision for increasing or decreasing the fee for the life of the contract. With guaranteed fixed profits perhaps the conglomerates that own the major shipyards would be more inclined to let experienced production personnel run the yard without the corresponding difficulties that arise under the present system. Alternatively the Government could acquire one or more major private shipyards and run it on a Government-owned, contractor-operated basis. By either method, the Government would be assured access to the facilities; the contractor could be paid all of his costs plus management fee to run the yard; and the claims problem would be ended.

## F. RESUMING SUBMARINE CONSTRUCTION AT NAVAL SHIPYARDS

1. The United States now has only two shipyards, both private companies, building nuclear powered submarines. Several years ago, we had as many as seven shipyards -- two Naval and five private -- building nuclear powered submarines.

2. During the last five years, the total delivery of submarines from our present two shipyards has averaged only two ships per year. This delivery rate will not sustain Navy submarine force levels.

3. Assuming the United States will build replacements for obsolete or worn out submarines, expansion of our construction base is necessary. A current Navy study concludes that the best way to expand the submarine construction base is to use a Navy shipyard.

4. Use of Navy shipyards for construction of ships was intended by Congress in the Vinson-Trammell Act passed in 1934. A provision in this law requires about half the Naval ships to be built in Navy shipyards unless the President waives this requirement in the public interest.

5. Since 1967 the policy of the Department of Defense has been to construct all Naval ships in private shipyards. A Presidential determination approving such action in accordance with the law has been routinely requested by the Navy and approved.

6. Ship construction problems in the private shipyards have resulted in long delays and large financial claims against the Government. Without another source, the Navy has no alternative but to award more contracts to the same private yards.

7. Construction of submarines in a Navy shipyard would provide needed competition to prevent private shipyards from dictating the terms and conditions under which ships are built. This would also provide a basis of comparison to determine the reasonableness of private shipyard costs, enhance the Navy in-house capability to respond to ship repair emergencies, and provide expertise for the Navy to oversee private shipyard programs.

## G. INDEPENDENT RESEARCH AND DEVELOPMENT (IR&D)

1. Independent Research and Development (IR&D) is contractor research and development work not required for the performance of any contract. The Government is not involved in the initiation or conduct of IR&D projects. Bid and Proposal (B&P) is closely related to IR&D and includes contractor technical and administrative effort associated with developing proposals. B&P is treated administratively like IR&D. The cost of both IR&D and B&P is included in contractor overhead accounts and allocated to Government and commercial work. Prior to 1960, the only IR&D reimbursed by the Government was that which was specifically applicable to the supplies or services covered by the contract.

2. The Defense Department reports that $1.4 billion was paid in 1980 for IR&D/B&P work at major defense contractors. When all defense contractors are considered, the total cost to the Government of IR&D is $1.5 to $2.0 billion. This compares with a budget of $13.6 billion in fiscal year 1980 for Defense Department R&D.

3. The Government should buy directly the research work it needs. The IR&D program wastes public funds since:

a. There is no Government supervision over IR&D work, no check that the cost of IR&D projects is reasonable, or even a check that contractors are working on the projects they say they are working on.

b. IR&D work may duplicate or overlap research being conducted elsewhere at Government expense.

c. IR&D thwarts competition in Defense procurement. The largest defense contractors generally receive the largest IR&D payments, thus helping to perpetuate their dominant or sole-source position in the market.

d. Contractors, not the Government, obtain the patent rights to technical data and inventions developed with IR&D funds. The Government may thus have to pay a contractor royalties to use an invention developed at Government expense.

4. Contractors and Defense Department officials maintain that Public Law 91-441 ensures effective Government control of IR&D work. The law, which was enacted more than a decade ago, provides that:

a. IR&D costs will not be charged to the Government unless the research work has "a potential relationship to a military function or operation".

b. Advance agreements on the potential military relationship of IR&D projects must be established with major defense contractors. (Currently, agreements are negotiated with contractors receiving more than $4 million from the Government for IR&D and B&P.

5. The Defense Department system implementing Public Law 91-441 is merely "window dressing". Defense Department officials readily

accede to almost any contractor claim of potential military relationship. For example, an IR&D Appeals Hearing Group has never had to convene to decide a dispute between a defense contractor and Defense Department negotiators over a question of potential military relationship. This is because the Defense Department accepts almost any IR&D project as having a potential relationship to military work.

6. The Westinghouse Electric Company Electro-Mechanical Division (WEMD) case illustrates this problem. The Navy recently determined that certain IR&D projects proposed by WEMD did not have a potential military relationship and therefore should be disallowed. Even though virtually all of WEMD's defense work is for the manufacture of coolant pumps for the Navy and the Navy is the acknowledged expert in this field, an Army representative ruled that these projects were allowable thus paving the way for the Defense Department to pay these costs. Details of this case are provided in Attachment 1.

7. The present system of IR&D payments is little more than a handout to certain large defense contractors. The Defense Department review procedures, which are intended as safeguards, are ineffective and largely cosmetic. Contractor IR&D should not be allowed as an overhead charge to the Government. The Defense Department should contract directly for any research and development work it requires, thereby giving the Government necessary control

over research work. It is estimated that $1.5 to $2.0 billion can be saved annually be returning to the past regulation that IR&D will not be charged to Government contracts unless a specific benefit can be shown.

8. Attachment 2 is a copy of a statement made before Congress on the subject of IR&D. The points made at that time are still applicable.

## IR&D BEING CONDUCTED BY THE WESTINGHOUSE ELECTRO-MECHANICAL DIVISION (WEMD)

- Since Westinghouse Electric Corporation's IR&D/B&P exceeds $4 million annually, Westinghouse is required to negotiate an advance agreement with the Defense Department on the allowability of these costs. Westinghouse submits brief descriptions of IR&D projects which are reviewed by cognizant Defense Department officials for potential military relationship. The Chief of Naval Research is assigned the lead within the Defense Department for conducting the review of Westinghouse's IR&D proposal.

- Included in the Westinghouse IR&D proposal are projects to be conducted by the Westinghouse Electro-Mechanical Division (WEMD). WEMD manufactures coolant pumps for the Naval Reactors program. This effort constitutes about 35% of WEMD's total workload and virtually all of the Division's defense work.

- Since Naval Reactors is technically cognizant of virtually all Defense related work at WEMD, Naval Reactors provided comments on WEMD's IR&D projects to the Chief of Naval Research. Naval Reactors identified that 85%, or $1.081 million, of WEMD's research projects have no potential military relationship since the projects are directed specifically at improvement of products for commercial nuclear power plants.

- Based on Naval Reactors comments, Government negotiators attempted to reduce WEMD's IR&D ceiling by 85%. Westinghouse refused and asked for a final Defense Department determination in

Attachment 1

this matter which, if Westinghouse chose, could be appealed to an IR&D Appeals Hearing Group.

o Rather than immediately issuing a final determination, the Defense Department convened a special IR&D Technical Evaluation Group (composed of representatives from the Army, Navy and Air Force and a representative of the Under Secretary of Defense for Research and Engineering) to review the Government position. Westinghouse was afforded the opportunity to provide new information concerning the potential military relationship of WEMD's IR&D projects.

o After the Westinghouse presentation, the Technical Evaluation Group voted on the potential military relationship of WEMD's IR&D projects. The Navy representative considered the Westinghouse presentation was simply a sales pitch to achieve Government funding of the proposed projects and that the work to be performed had, at best, only incidental relevance to the military. The Air Force represenative, for the most part, concurred in the Navy's position. The Army representative, however, took the position that virtually all of the proposed IR&D projects had potential military relationship. The Army representative could cite no direct relevance of WEMD's IR&D projects to the Army but stated that the work might advance military technology at some point in the future and, therefore, should be accepted. The chairman of the Technical Evaluation Group, the representative of the Under Secretary, announced that the Defense Department would be bound by the Army's determination and WEMD's IR&D program would be considered allowable as a charge to the Navy.

- In this case, the Army, without having to justify why the work would be relevant to Army activities, has overriden the Navy's technical determination that the company's IR&D directed at the development of commercial nuclear plants has no potential military relationship. In this regard it is worth noting that the Navy has over 30 years of experience in the development and operation of nuclear power plants. The Army has much less experience in this area and is not involved at all with the work being conducted at WEMD.

- On April 10, 1981, the Assistant Secretary of the Navy (Research, Engineering and Systems) requested that the Under Secretary of Defense for Research and Engineering review the findings of the Technical Evaluation Group and support the Navy's determination that most of WEMD's IR&D projects have no potential military relationship and should be disallowed.

- A decision by the Under Secretary is pending. It should be noted, however, that Westinghouse can have the issue heard in yet another forum by appealing any adverse decision of the Under Secretary to the IR&D Appeals Hearing Group.

THIS STATEMENT REFLECTS THE VIEWS OF THE
AUTHOR AND DOES NOT NECESSARILY REFLECT
THE VIEWS OF THE SECRETARY OF THE NAVY
OR THE DEPARTMENT OF THE NAVY.

STATEMENT OF
ADMIRAL H.G. RICKOVER, USN
BEFORE THE SENATE ARMED SERVICES COMMITTEE
AND
THE JOINT ECONOMIC COMMITTEE

ON

INDEPENDENT RESEARCH AND DEVELOPMENT

ON

SEPTEMBER 29, 1975

## OPENING STATEMENT

Mr. Chairman, you have asked me to testify before this joint session of the Senate Armed Services Committee and the Joint Economic Committee on the topic of independent research and development. I know of no area of defense procurement that is more in need of Congressional attention and action. We are devoting scarce Government funds on a program that is, in my opinion, ill-founded and wasteful. For convenience, I will refer to independent research and development and bid and proposal expense as IR&D since the distinction as to which category the work falls into is largely a matter of semantics.

Over the years, defense contractors have vigorously defended the IR&D program on the basis that they must develop new concepts to be able to compete in the defense market; that companies are most innovative when they are free to explore promising ideas without Government interference.

Attachment 2

They conclude that IR&D is a necessary business expense which benefits the Government and which therefore should be recognized and reimbursed by the Government, but with rights to technical data and inventions to be retained by them.

Some of these arguments might have more validity if there were true competition in defense procurement. However, the vast majority of defense procurement is actually non-competitive, with only a few large firms competing for major weapon systems because of the large amount of technical, financial, and productive resources required. Even when more than one firm is capable, prior experience, shop loading, or other factors can effectively insulate the successful bidder against competitive pressures.

One of the problems with IR&D--the lack of incentive to control costs--stems from this situation. When there is no true competition, prices are based on the actual costs incurred and these costs generally can be passed on to the Government. Thus, contrary to what industry spokesmen might claim, the Government cannot safely rely on competition in the marketplace to ensure IR&D expenditures are reasonable.

The Defense Department exercises practically no surveillance over IR&D expenditures. These IR&D costs are charged through overhead. Thus, at predominantly defense oriented plants, the Government ends up paying most, or sometimes all, IR&D costs. Yet, the Government has no say in how the money is spent. Therefore, we have developed a system where public funds are spent without proper accountability.

Today the Defense Department is having increasing difficulty obtaining the funds necessary for national defense. After lengthy study, the General Accounting Office concluded that it could not determine whether the benefits to the Government from contractors' IR&D efforts are worth the cost to the Government. From my experience in charge of a major defense program, I believe the IR&D program is a waste of taxpayers' money.

Here are some of the important considerations which determine my belief.

## COST OF IR&D

IR&D costs have increased as a percentage of total defense sales from 2.73% in 1968 to 3.73% in 1974. In fiscal year 1974, the Defense Department reported IR&D expenditures of $808 million. These reported figures are significantly less than the amount actually spent because they cover only 90 of the largest defense contractors. The total figure for all contractors probably exceeds $1 billion.

Year after year, before the budget request is submitted to Congress the Navy has had to eliminate important submarine research and development projects due to a shortage of funds. Congress then makes even further cuts. In fiscal year 1973, for example, Congress cut the DOD research and development budget more than $800 million. In FY 1974, Congress cut more than $400 million, and in FY 1975 nearly $800 million. When actual defense needs are not funded, why should we spend up to a billion dollars a year financing IR&D projects, because of the vague hope that someday something of value will result?

## IMPACT ON COMPETITION

Rather than enhancing competition, as large defense contractors claim, IR&D actually inhibits competition. Since the largest defense contractors generally receive the largest IR&D payments, this helps them to perpetuate their dominant position in the market. Furthermore, these contractors can charge Government contracts for developments they hope to exploit in their commercial business. Obviously, the smaller the company, the less advantage it gets from IR&D.

Here is an example. At a shipyard where about 99 percent of the work is being done for the Navy, the company charged us over $500,000 for "bid and proposal expenses." This was related to the development of a large, nuclear-powered commercial submarine tanker to transport oil under the Arctic ice cap. This was strictly a commercial proposition; it had absolutely no military value. In fact, the company could not have undertaken the project without the expertise acquired in the performance of Navy work. Yet the company took the position that the Navy would benefit from the work and should pay its design and engineering costs. The company has taken its case to the Armed Services Board of Contract Appeals where a decision is pending.

What bothers me is this: Why should the Department of Defense subsidize commercial developments when it is unable or unwilling to fund military submarine research and development projects?

## PROMOTING A MODERN INDUSTRY TECHNOLOGY BASE

Large defense contractors argue that IR&D is necessary to keep an up-to-date and modern industrial technology base for defense needs. But the grant of large IR&D subsidies to large defense contractors, smaller subsidies to smaller defense contractors, and no subsidies at all to firms without defense contracts does not broaden the industrial base. In fact, it narrows it. The Defense Department's IR&D payments help only those firms which already have defense contracts. Firms that desire to enter the defense market must find another source of financing.

The Department of Defense already makes a substantial contribution to maintaining a modern industrial technology base throughout American industry--without IR&D. From what I have seen, the flow of ideas and technology from Department of Defense-funded major weapon systems contracts to non-defense areas far exceed the ideas and technology the contractor brings to the job from non-defense work.

## BENEFITS FROM IR&D

For the past several years, defense contractors and the Defense Department have been trying to collect examples of innovations under the IR&D program. By now, they have impressive lists showing that work performed under IR&D was "instrumental to this program," or "led to the development of that piece of equipment." IR&D is frequently cited as a contribution to the success of laser development, the Huey helicopter, integrated circuits, and so on. But, I could name hundreds of actual, not claimed, improvements in nuclear plant technology which resulted from direct Navy or AEC funded research and development. The issue is not whether discoveries have been made under IR&D, but whether the Defense Department can afford to pay a billion dollars annually for contractors to spend as they see fit, in hopes that our defense will at some future unspecified date benefit directly or indirectly from such expenditures.

## IR&D AS A NORMAL BUSINESS EXPENSE"

Defense contractors argue that IR&D costs are as legitimate as rent, heat, light, maintenance and the like. This is not a valid comparison. There is no incentive for a contractor to waste heat or light. However, increased IR&D spending can enhance the company's profits and strengthen its market position, military and commercial. When major defense firms face declining sales, they can use IR&D in any way they wish, and with no strings attached, to pay the salaries of engineers and other technical employees not needed on other work.

## RIGHTS TO INVENTIONS, PATENTS, AND TECHNICAL DATA

Under the IR&D program the Defense Department gives away all rights to inventions, patents, and technical data, even though the Government may pay for most of the work. If the DOD wants to use an invention financed under IR&D, the contractor may extract a royalty. One contractor developed at Government expense and patented an automatic welding machine. This was then marketed to defense suppliers and to Government installations. As it turned out, the Government paid not only for developing the invention but also royalties for the right to use it on Government work.

In my view, the Government should insist on rights to the technology it finances. If, as contended, the Government destroys a company's incentive to innovate by acquiring rights to patents, inventions, and technical data, why is it proper to have a double standard wherein companies do not grant rights to their employees and subcontractors for new concepts that are developed on the job?

## DOD ADMINISTRATION OF IR&D

In an attempt to establish some semblance of control over IR&D expenditure, Congress has required the Defense Department to set, in advance, annual ceilings on the maximum amount of a contractor's IR&D that the Department will reimburse. Congress also requires that IR&D projects, to be allowed, must have a potential military relationship. But these controls are not effective.

When the Defense Department's annual share of a contractor's IR&D exceeds $2 million, the Department negotiates an advance IR&D ceiling agreement with the contractor. However, in these negotiations, the Defense negotiators are in a weak bargaining position. Large contractors can hold out for a higher ceiling amount and usually get it.

Four years ago, a large defense contractor refused to agree to an IR&D ceiling that the contracting officer considered reasonable. The contractor insisted on a higher amount and in the Court of Claims challenged the Government's right to set the lower figure. The matter is still pending.

Although negotiations to establish IR&D ceiling amounts are based on technical review of the IR&D proposals, the process is largely "brochuremanship." Defense personnel review the contractor's IR&D submittals and briefings and comment on them. These evaluations, however, have little or no impact on how much IR&D will be handed out.

Those who conduct the reviews for the Government have no incentive to challenge the projects or amounts. Unless Government reviewers can prove that a project has no "potential military relationship," the cost of the project is allowed. Projects have been accepted such as development of sewage treatment systems for coin operated laundries; energy studies for heating high rise buildings; and the development of home appliances. These were considered as having a potential military relationship.

I cannot envision a project that could not be defended as having a potential military relationship. What is to prevent a turbine manufacturer from studying fruit flies since fruit is eaten by the piccolo player of a military band? What if the contractor decides to develop a new blend of coffee--obviously this would have a potential relationship with the eating habits of the military. Under the current IR&D program, the Government is committed to supporting any new venture a defense contractor decides to undertake.

Even if an IR&D project were challenged as a result of technical review, determinations that it does not have a potential military relationship cannot be made without the prior approval by the Office of the Director of Defense Research and Engineering. Even if the challenge were sustained, this rarely would effect the amount of IR&D the Defense Department pays. Any amount so disallowed is considered as included in the costs allocated to non-defense work.

As you can see, the technical reviews have not been effective. In the words of the Comptroller General, "Our studies have found that the PMR (potential military relationship) has had no effect on DOD's reimbursement of contractors' costs."

So far I have been discussing the situation where the Defense Department's annual share of a company's IR&D is $2 million or more. Where the Department pays less than $2 million, the ceiling is set as a percentage of the company's prior year IR&D expenditures. Also, there is then no requirement for technical review of the work to be performed--the costs are automatically accepted.

Thus, while there may appear to be a degree of control over IR&D as a result of past Congressional directives, there is not. The safeguards are largely cosmetic.

## IMPACT ON NATIONAL DEFENSE

The argument has been made that the Soviet Union is spending twice as much on research and development as the United States in an effort to close a technological gap that developed because of the superiority of the free enterprise system; that IR&D helps finance the ingenuity and innovations which have contributed so much to the success of the free enterprise system; and that therefore continued Government support of IR&D is essential. The impression is left that IR&D helps us hold our lead in technology despite mounting expenditures by the Soviets.

It is dangerous to think that the United States can maintain indefinitely a technological lead over countries that are willing to devote substantially more resources to the task, regardless of their political or economic system. In my view, the fact that the Soviets are spending far more than we are for research and development is all the more reason to spend our limited funds in areas that are most likely to be profitable from a technological standpoint.

Elimination of Defense Department support for IR&D would not mean the end of technological breakthroughs. Nor would it cause the United States to become a second rate research and development country. Prior to 1960, the Department of Defense had a firm policy limiting IR&D. The Atomic Energy Commission followed a policy of allowing independent research and development costs only when such costs were specifically provided in the contract, and only to the extent that such work benefited the basic contract work. When the Commission did participate in a contractor's independent research program, it obtained for the public the rights to technical data and inventions commensurate with the Government's investment. That policy did not impede the development of atomic energy. Neither do I believe that elimination of IR&D would impede national defense.

## SUMMARY

Obviously, some beneficial ideas have resulted from independent research and development. However, we are faced with the need to make decisions in a climate of limited funds. A philanthropist might donate large sums to enable individuals or organizations to pursue their personal interests. But an ordinary citizen with limited income must conserve funds by spending his money where it will benefit him directly. Since philanthropy is not in the Defense Department's charter, I believe it should confine its spending for research and development to specific projects where companies and individuals can be held accountable for expenditures and results. In this way, Congress could also properly exercise its oversight function over IR&D expenditures--something the Congress is presently not doing. If it is considered that private research warrants public support on a basis other than military needs, such support should be authorized by Congress, and administered on that basis, not hidden in the price of defense contracts.

The current IR&D program does not provide benefits to the Government anywhere near the cost. It is a subsidy the Government can no longer afford. Nor is the nation served by the further concentration of economic power in the hands of a few large defense contractors, which the present policy assists.

## RECOMMENDATIONS

1. The present system of DOD payments for independent research and development and bid and proposal expenses should be eliminated.

2. The Department of Defense should allow costs of independent research and development projects only when such costs are specifically provided in the contract and then only to the extent such work benefits the contract work itself.

3. The Department should receive, in the name of the Government, patent and data rights commensurate with costs financed by the Government on independent research and development projects.

4. In cases where company proposed research and development projects have sufficient benefit to warrant the cost, the Department should finance the work by direct contract, rather than through IR&D. Responsible Government officials would supervise the work, as they are supposed to for all work the Government undertakes.

5. If federal subsidies of private independent research and development are necessary in other areas, such subsidies should be administered by the appropriate Government agency which has expertise in that area. Subsidization would then be aboveboard and measurable by Congress. Appropriate controls could be established to preclude concentration of

technology among a few favored industries; to provide adequate direction over the work; and to ensure the Government retained rights to work financed with public funds.

## CONCLUSION

The present situation with respect to IR&D is in effect "taxation without representation." Congress has, in essence, delegated its rights and duties under the Constitution to Defense officials. There is little surveillance by the Department or by Congress of these large expenditures. Appointed Defense officials are under no constraints as to the amount that can be approved.

Just think how popular you can become with contractors when you have a billion dollars to give away with no strings attached. To put this into perspective, I remember from my high school days that the entire federal budget in 1916 was about $700 million.

I contrast this easy way of spending money with the one I have to face when I ask for hard-to-get, relatively small sums for research and development from the very same people who approve the IR&D. And when they agree, the request must still be justified and defended before the authorizing and appropriations committees of Congress.

The recipients of IR&D largesse do not have these problems. They can simply initiate a program and charge the cost to Government contracts, without justifying the expenditure to the Defense Department, to Congress, or to anyone else. Defense contractors contend that their reimbursement is subject to ceilings set by the Defense Department. But if they can persuade Defense officials to accept a higher ceiling, they can get it.

It is inevitable that favoritism may enter into such a practice. Yet no one could ever be proved guilty of wrongdoing because the amounts approved are left entirely to the judgment of those in charge.

I sometimes wonder what the ordinary citizen, who has to labor in making out his income tax, would think if he knew and understood this strange system of handing out government funds. He might even wonder why he also is not given some of the free money, when it is so readily given to large defense contractors.

How do you suppose he would vote on this issue were he to have the opportunity?

Mr. Chairman, I deeply appreciate the opportunity to present my views on this subject to your two committees.

## H. FREEDOM OF INFORMATION ACT

The Freedom of Information Act is an example of a law that was passed with the good intention of helping our citizens to know what government is doing, but which has resulted in a major burden that is a detriment to efficient and effective government.

One individual with pen, paper and a few stamps can effectively disrupt a Federal agency. A person asking for all Government records on a given subject can cause the expenditure of thousands of tax dollars and many manhours of Federal workers time in complying with the request. The law does not require the requester to justify his request or demonstrate that satisfying it will benefit the public. While some records are exempt from release, the exemptions have been narrowly defined. The law provides for appeals and judicial reviews of denials such that the government is constantly on the defensive when, in the public interest, it should be withholding information.

The Freedom of Information Act as amended is a powerful tool in the hands of an individual or group who, for personal reasons, can use it to the detriment of the public good. It will and has been used in this way. This law now enables any person, alien or U.S. citizen, to roam within the files of every Government agency increasingly disrupting the day-to-day business and occupying the time of too many Government personnel. An honest appraisal of this Act would show that it is being used primarily to serve private interests for their own benefit.

A principal area of concern is that, through the Freedom of Information Act, anyone can gain access to unclassified military technology unless it can be withheld from release according to one of the limited exemptions in the Act. This can result in loss of an extremely large amount of sensitive and valuable military technology with serious consequences for our national defense posture. In the area of naval nuclear propulsion, for example, a large bulk of the technical information is not classified because to do so would result in much higher cost and loss of efficiency in building the ships. But this information is very valuable and should not be subject to disclosure under the Freedom of Information Act.

One way to solve this problem would be to amend the Act to include an exemption of any military technology that is on the United States Munitions list. Another way would be to enact a separate statute to accomplish the same result. This was proposed in the last Congress with HR 7331, a copy of which is attached.

Attached is a list of additional changes that should be considered for the Freedom of Information Act.

## Changes to the Freedom of Information Act

1. The Act does not require the requester to demonstrate a legitimate reason why he needs a given record or how the public good will be served by its release. In the absence of such a justification, which can be considered on its merits, an individual or organization can make a request for purely selfish reasons that will harm the public interest if the requested records are released.

2. The Act should apply only to requests by U.S. citizens. The government should be under no obligation to supply records to foreign nationals.

3. In addition to the need to exempt military technology, the existing exemption categories should be expanded to cover more fully items which the government receives in confidence. For example, management inspection reports or private firms doing government work should be exempt else the government will no longer be able to obtain such reports.

4. The provisions of the Act dealing with classified reports need revision. The Act appears predicated on the basis that classified government records are improperly classified. The Act should be structured upon the presumption that government records are properly classified. Otherwise, government representatives are placed in the ludicrous position of having to try and defend in public the classification of documents which by law they cannot disclose to the public without being subject to criminal penalties. In addition, the present Act's provision for judicial review of the classification of government records should be narrowed. A requester should have to demonstrate some basis for improper handling by the government before the judicial process comes into play.

5. Under the present Act each agency establishes a uniform schedule of fees for recovery of the cost of searching for and duplicating records requested by the public. However, the cost of examining the records for exempt materials is not recoverable by the Government. Based on recent experience, the time and effort expended in reviewing requested records for exempt material considerably exceeds the time and expense of the administrative search for and duplication of the documents. Further, review for exempt material is an administrative duty which cannot be taken lightly. Improper disclosure of certain classes of exempt material might expose government personnel to criminal or civil liabilities. The Freedom of Information Act should be revised to recognize the government's efforts to review records for exempt material and to make the cost of this review recoverable.

6. The Act as amended gives an agency 10 working days in which to advise the applicant of the determination whether to disclose or to withhold the requested documents. For straightforward requests of single documents which are readily available, compliance with the legislative mandate ordinarily is not burdensome. What the law does not adequately take into account, however, are requests for large quantities of public records. In cases such as these compliance with the 10-day period for

determining the agency's position to disclose or to withhold the requested records is plainly impossible. The Act should be revised so that the number of working days in which the agency must determine the applicability of exemptions is flexible according to the magnitude of the request.

7. The present Freedom of Information Act is being used as a vehicle for obtaining public records when litigation with the Government is pending to circumvent the Boards' or Courts' rules with respect to discovery of documents. For example, in one administrative proceeding where the Board of Contract Appeals had ruled that the period for discovery of records had ended, the law firm representing the private litigant nevertheless sought and obtained Navy records subsequent to the closing of discovery through the Freedom of Information Act. The Act should be revised to provide that when a matter involving the discovery of records is in litigation, the Freedom of Information Act should not be available as a substitute for discovery under Court of Board rules.

8. Another consideration which has not been taken into account in the Act is the inviolability of common-law privileges. The traditional common-law rule -- namely that confidential communications between an attorney and his client and documents, information and data acquired or prepared by an attorney in preparation for litigation, are privileged and not subject to discovery by another party to a litigation -- has not been properly recognized in the Freedom of Information Act. A literal reading of the Act would indicate that such traditionally privileged communications and documents may indeed be obtained by an opposing litigant pursuant to the Act. A way to clarify this would be to include the following as an exemption:

> "Nothing herein shall be deemed to limit or abridge common-law privileges of Counsel representing the Government in defense of civil claims, procurement matters or both bona fide legal activities, nor shall the details of Government preparation for defense of litigation before any court or administrative body be required to be produced under this Act."

96TH CONGRESS
2D SESSION

# H. R. 7331

To amend the Arms Export Control Act (formerly Foreign Military Sales Act) to authorize the President to prescribe regulations for protecting arms information from the risk of indiscriminate export.

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IN THE HOUSE OF REPRESENTATIVES

MAY 13, 1980

Mr. BENNETT introduced the following bill; which was referred to the Committee on Foreign Affairs

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# A BILL

To amend the Arms Export Control Act (formerly Foreign Military Sales Act) to authorize the President to prescribe regulations for protecting arms information from the risk of indiscriminate export.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That chapter 3 of the Arms Export Control Act is amended by adding after section 38 thereof the following new section:

"CONTROL OF EXPORT OF ARMS INFORMATION

"SEC. 38a. The Secretary of Defense, in consultation with the Secretary of State and the Secretary of Energy, is authorized to prescribe regulations which specify information pertaining to items listed in the United States Munitions list that is required in the interests of the United States to be protected from disclosure in order to preclude the possibility of unauthorized export. Such regulations shall be published for public notice in the Federal Register. Notwithstanding any other provision of law, information specified in such regulations, or materials revealing such information, shall not be published or disclosed unless the Secretary of Defense, in consultation with the Secretary of State and the Secretary of Energy, determines that withholding thereof is contrary to the national interest.".

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## I. OCCUPATIONAL SAFETY AND HEALTH

### Federal Employees

Executive Order 12196 of February 26, 1980, should be cancelled. This order, which directs changes in the Federal employee occupational safety and health programs under Section 19 of the Occupational Safety and Health Act has a number of flaws:

> By this Order, the responsibility of Federal Government managers to provide for the safety and health of the employees is diluted. Under the previous Executive Order covering this area (E.O. 11807 of September 28, 1974), each agency was responsible for the safety of its employees and was required to implement a program comparable to or better than Department of Labor requirements. The authority of each agency was clear. The new Executive Order removes the authority and therefore the actual and perceived responsibility of each agency for health and safety. This situation will result in diminishing rather than strenghtening of health and safety for Federal employees. While it may be appropriate for one Federal agency, the Department of Labor, to exercise regulatory authority over health and safety matters in the private work place, it is fundamentally wrong to put the Department of Labor in a regulatory position over other Federal Agencies.
>
> By this Order, the authority of employees bargaining units (unions) for health and safety matters is elevated to a status equal to or greater than agency management. While it is important that employees should be heard in the matter of their own health and safety, employees should not be able to dictate to management policies and procedures and how they are to be carried out. Carrying out the full intent of the Order could seriously degrade existing labor-management relations in the Federal government.
>
> By this Order, additional layers of bureaucracy are created. Nothing in the order permits an agency to abolish any of its existing functions relating to safety and health; the Order only transfers authority for certain functions to another agency, the Department of Labor, where issues that once were resolved locally will be pushed to even higher levels in the bureaucracy.
>
> By this Order, the Department of Labor is assigned full authority to prescribe and enforce safety and health standards for all Government agencies. The order does not recognize, as the OSH Act does in Section 4(b)(1), that many agencies have separate legislative authority to prescribe and enforce safety and health standards in certain areas. For example, the Department of Defense, in conjunction with the Department of Energy, has and exercises authority under the Atomic Energy Act of 1954 to prescribe and enforce safety and health standards with regard to the handling and use of special nuclear material and by-product materials. By not recognizing this authority, the Order invites confusion.

Executive Order 12196 should be cancelled and replaced with an Executive Order similar to the previous Order of September 1974. The new Executive Order should:

- Specify that each agency is responsible for its own safety and health program consistent with the OSH Act. The Department of Labor's responsibility should be limited to overviewing each agency's program.
- Specifically exclude military personnel and unique military equipment, systems, and operations.
- Make clear that working conditions which are regulated by other federal agencies under separate statutory authority are not included under safety and health programs established under the Executive Order; Section 4(b)(1) of the OSH Act exempts such conditions from the OSH Act.

Private Contractor Employees

The OSH Act applies to and is enforced by the Department of Labor for private contractors performing work for the Department of Defense and the military departments in the same manner as it applies to other private industry. This can result in conflicts between national security requirements and compliance with OSH Act safety and health standards when private contractors are working on unique military equipment, systems, or operations.

The Department of Labor should be required to coordinate with and obtain Department of Defense agreement before making inspections of, or issuing citations to, private contractors working on unique military equipment, systems, or operations.

## J. ATOMIC ENERGY PROGRAMS WITHIN THE DEPARTMENT OF ENERGY

There have been many news media reports that the Reagan Administration plans to either dismantle or drastically reorganize the Department of Energy. The Reagan Administration has also announced an appropriate renewed commitment to the safe and effective use of nuclear power as a principal energy source.

Such a commitment should not be undertaken without adequate organizational responsibility and technical management capability for our atomic energy programs. These capabilities existed in the old Atomic Energy Commission before its regulatory functions were divested from its role involving reactor development, nuclear waste management, and military nuclear applications. As the non-regulatory part of the Atomic Energy Commission became absorbed first into the Energy Research and Development Administration and subsequently into the Department of Energy, its role and stature has continually diminished. The responsibilities of the former General Manager of the Atomic Energy Commission who reported to five Commissioners appointed by the President has now been divided up among three decentralized Assistant Secretaries in the Department of Energy, who are three levels below the Secretary of Energy. The quality and capability of people willing to take these key jobs has diminished, as has the in-house technical capability of these organizations. Those portions of the old Atomic Energy Commission that still reside within the Department of Energy play an appropriate Federal role in reactor development, in solving nuclear waste management problems on a national basis, and in providing a valid and appropriate self-regulatory capability for certain military nuclear applications, e.g. weapons production and the Naval Nuclear Propulsion Program, for which the Department of Defense is the ultimate customer.

Any major reorganization of the Department of Energy by the current Administration should be aimed at reenforcing and enhancing the role and stature of atomic energy programs, rather than the continuing diminution of the importance of these efforts as has occurred in the Energy Research and Development Administration and in the Department of Energy.

## K. NEED FOR PROFIT LIMITING LEGISLATION

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20362

IN REPLY REFER TO

9 April 1981

The Honorable Samuel S. Stratton
Chairman, Subcommittee on Procurement
and Military Nuclear Systems
Committee on Armed Services
House of Representatives
Washington, D.C. 20515

Dear Mr. Stratton:

This is in reply to your letter of February 25, 1981 requesting examples of contracts completed in the last five years on which I believe excessive profits have been made. In that letter you also stated that your Subcommittee may soon be holding hearings concerning profit limitations on defense contracts. It is my opinion that there is a compelling need for legislation which will ensure that defense contractors are not allowed to be paid, or to retain, excessive profits.

Contrary to what defense contractor lobbyists contend, defense procurement regulations do not of themselves provide adequate means to avoid excessive profits on defense contracts. However, because the Department of Defense in many cases does not have access to the data needed to identify excessive profits, it is difficult to cite specific examples.

The Department of Defense, for example, does not maintain records of subcontractor profits, yet the potential for overcharging at this level is high. Prime contractors who are not under heavy competitive pressure have little incentive to shop for the lowest price. In fact, since profit is negotiated as a percentage of cost, high subcontract prices can provide higher profits to him.

There also is a tendency at the subcontract level to circumvent the requirements of the Truth in Negotiations Act and other procurement safeguards. Since the requirements for submission of subcontractor cost and pricing data do not apply to competitive procurements, receipt of more than one bid by the prime contractor is frequently determined to be "adequate competition" regardless of circumstances. For example, for certain types of steel, manufacturers have for many years bid against one another on a basis that, when transportation costs from the different steel mills to the contractor's site are added to the bids, the total price is the same no matter which steel company is selected. This method of pricing, which results in identical bids, has been construed by some prime contractors to represent competitive bidding, as have other situations where several distributors of one manufacturer's product submit identical quotes.

Historically, the forging industry has also been a trouble spot. The industry has a long tradition of refusing to provide cost and pricing data for sole source procurements. Competitive bidding avoids the requirements for cost and pricing data. But competition in this industry is illusory, because the supplier who wins the first order frequently has a substantial advantage over his competitors. In subsequent procurements the competitors' prices must include the one-time charges for forging dies which the first supplier already possesses.

In other cases sole source suppliers evade cost or pricing data requirements by contending that their prices — even for specialty materials — are "based on catalogue price" — another condition that exempts the procurement from the cost and pricing data disclosure requirements of the Truth in Negotiations Act. The International Nickel Company, for example, has never provided cost and pricing data under the Truth in Negotiations Act, even though it has a virtual monopoly on certain nickel based alloys used in defense work. In another instance, Cabot Corporation — the sole source of a special material used in large naval reactor valves — refused to submit required cost and pricing data by claiming "catalogue price." The company later acquiesced and submitted the data after contract award. Review of the data by the Government disclosed that the profit quoted by the contractor was 66 percent of estimated cost.

Even when the subcontractor provides cost or pricing data prior to contract award, excess profits are not always avoided. Profit figures can be understated by inflating cost estimates. Information disclosed during litigation with Curtiss-Wright, for example, revealed that the company may have prepared two estimates in support of their price — one they provided for audit under the Truth in Negotiations Act and the other based on the amount they actually thought was required to do the job.

Some sole source subcontractors use a less subtle approach to obtain high profits. The subcontractor submits all required cost and pricing data, but openly insists on being paid high profits. For example, U.S. Steel — the company that manufactures high pressure air flasks for the TRIDENT submarines — has been able to insist on a profit of between 27-38 percent of estimated cost. In another instance, Carborundum — the sole source supplier of material used in the fabrication of reactor cores — has historically demanded a profit of 25 percent. With no alternative sources for the material and not enough business to develop and support a second source, the Government has little or no leverage for negotiating the profit downward.

In contrast with the subcontract situations, major Department of Defense prime contractors generally provide cost and pricing data which can be reviewed by defense auditors prior to price negotiations.

This cost data, however, can be inflated with contingencies, identified or unidentified, which represent the opinion of the contractor and are not capable of being audited. If the contractor is in a sole source position, the Government may have no leverage to negotiate unjustified contingencies out of the contractor's price.

An excellent example of the above is the contingency Newport News recently began adding to price proposals, supposedly to take into account a projected workforce inefficiency due to an increase in its submarine overhaul workload. The Government repeatedly requested information to justify the numbers used in arriving at the company's estimate such as the need for new hires, the duration of inefficiency, and the basis of the "inefficiency factor" applied. The contractor refused to provide any supporting data. Eventually the Navy had to include the additional $1.5 million in the price of the first of the submarine overhaul contracts without ever having seen any justification for the additional manhours. Similarly, during negotiations for the CVN 71, Newport News proposed over 2 million manhours more than the company was then projecting as necessary for the construction of the CVN 70. The only justification was an expected inefficiency due to a "younger workforce." These higher estimates were made despite that the CVN 71 was the fourth ship in the class built by this shipyard, with only minor differences in specifications between the ships. Although the Navy strongly disagreed with the estimate, there was no alternative source for construction of this ship and the contract price included the effect of the additional manhours.

On cost-type contracts and on fixed price incentive contracts, the Department of Defense can easily determine the actual profits realized. This is because the contracts themselves provide that, subject to the ceiling price in fixed price type contracts, the Government must pay incurred costs plus either a fixed fee or an incentive fee based on performance. Under incentive contracts, the contractor gets a higher profit if he holds costs down. Defense contractor lobbyists, no doubt, would contend that any profits realized under incentive contracts or fixed price contracts represent rewards for good performance and therefore cannot be excessive.

The fallacy in this argument is that there are ways, other than cost reduction, to gain a higher incentive profit. Specifically, in negotiating contracts or contract changes a contractor may be able to inflate prices so that normal performance will show up as a substantial underrun. Underruns for these reasons are rewarded as handsomely as cost reductions resulting from increased efficiency. Since the Government has little or no leverage in price negotiations with sole source contractors, a contractor may make a high profit through price negotiations and claims more easily than by reducing the cost of contract performance. Here are examples from a very profitable shipyard.

Enclosure (1) lists the last six submarine overhaul contracts completed by Newport News. These are sole source, cost-plus-incentive-fee contracts under which the Navy negotiates the estimated target cost for the work with Newport News with a target profit equal to about 10 percent of the target cost. To provide the contractor an incentive to reduce costs, the Navy agreed that, to the extent Newport News spends less than the target cost, the company will receive in additional profits 30-40 percent of the cost savings. In this regard it is important to note that 10 percent of estimated cost is currently the maximum fee authorized by law for cost plus fixed fee contracts; it is also the maximum fee listed in the Defense Acquisition Regulation for cost plus incentive fee contracts. It requires a waiver of procurement regulations to allow this incentive fee arrangement which provides the opportunity for higher profits — permitting the contractor to earn a profit up to 15 percent of negotiated target cost.

Enclosure (1) shows that Newport News has been making far more than the 10 percent target fee. For the past six submarine overhaul contracts, Newport News has received an average 17.6 percent profit as a percentage of actual costs. Profits on individual contracts have ranged from 15 to as high as 21 percent. Since the work is performed under cost reimbursement contracts, the contractor is guaranteed recovery of all his costs and is not subject to any financial risk for performing these contracts. Yet the profits being realized under the contracts are higher than those normally associated with higher risk, fixed price contracts.

During the course of every overhaul, additional work arises for which the Navy and Newport News negotiate contract changes and increase the target cost and fee. Upon completion of the contract the Navy compares Newport News' actual costs of performance with the adjusted target cost of the contract and, if actual costs are less than the target, pays the appropriate incentive fee. It is interesting to note from Enclosure (1) that the final incurred costs on these contracts, without exception, are but a few million dollars away from the original negotiated cost for the overhaul — before any increase for changes. This suggests that the underruns for which the company is being paid so generously may be the result of aggressive negotiation by the contractor rather than sound management and improved productivity.

On recent sole source, firm fixed price contracts for post-shakedown availabilities of new construction submarines, Newport News has realized profits ranging from 9 to 36 percent of incurred costs. Enclosure (2) shows that on the average Newport News has realized a profit of 21 percent of incurred cost. On these contracts, an average of 30 percent of the final price represents the price of contract changes which were negotiated after the ship had left the yard and the contractor had incurred almost all his costs. Under the circumstances, it appears that the high profits resulted more from price negotiations than from cost reductions during contract performance. The ability to negotiate price after the work is completed and the repetitive nature of this work greatly reduces any financial risk the contractor might have.

One cannot simply look at the profit as a percentage of cost and conclude whether or not excessive profits exist. A five percent profit might be very low for some work, yet excessively high in contracts which involve low risk, negligible contractor investment, or have large portions of the work subcontracted. There are indicators more representative of a successful business operation than profit expressed as a percentage of either cost or sales. One commonly used is return on investment.

Return on investment helps put the profit picture into perspective. In effect it tells what rate of return is being realized for the dollars invested. The foregoing example regarding submarine overhaul contracts illustrates the significance of looking at return on investment in evaluating profits. In its financial reports to stockholders, Tenneco — the parent corporation for Newport News — ranks the performance of its various divisions and subsidiaries based on return on net assets employed — one way of calculating return on investment. The recent report for 1980 showed that Newport News had in one year moved to near the top of the ranking of Tenneco divisions. The return on net assets for Newport News was 18 percent for 1980. This was exceeded only by the historically profitable oil and natural gas pipeline divisions, which reported a 25 percent and 20 percent return on net assets, respectively.

Although the Defense Department does not for the most part evaluate return on investment, it is possible at Newport News to approximate the company's return on Navy overhaul contracts. This is because Newport News, in order to receive payments from the Defense Department for cost of facility capital employed, allocates its assets to various product lines. Using this data, Newport News received approximately a 27 percent return on investment for these risk-free, cost type Navy overhaul contracts in 1980, despite the company's large investment in new dry docks to perform this work. For cost type design contracts where the Navy has been paying a fee of about 8 percent as a percentage of cost, the return on investment to Newport News in 1980 was about 34 percent.

In addition to examining profit as a percentage of cost and return on investment, other factors such as risk, investment, and profit levels being realized on comparable non-defense work must also be considered when screening for excessive profits. Moreover, profits should be evaluated by individual contractor and by product line. Otherwise contractors can hide excessive profits on sole source or non-competitive contracts in their overall averages.

To identify excessive profits a judgement needs to be rendered by knowledgeable persons who have access to the necessary information.

In cases where it is determined that excessive profits exist, the Government must have the right to recoup them.

In the current climate of increasing defense expenditures in areas such as shipbuilding, where industrial capacity is limited, it is unrealistic to presume that true competition exists; or, in cases where there is more than one supplier, that competition can be relied upon to protect the U.S. against excessive profits.

The examples cited above illustrate why I consider we need profit limiting legislation. If I can be of further assistance, please let me know.

Sincerely,

H. G. Rickover

H. G. Rickover

Enclosures
(1) Fee on Completed Submarine Overhauls
(2) Profit Earned by Newport News on SSN 688 Class Post-Shakedown Availabilities

### FEE ON COMPLETED SUBMARINE OVERHAULS
($ Millions)

| Ship | Completed | Original Contract Target Cost | Final Contract Target Cost | Final Incurred Cost | Fee | Original Contract Fee (%) | Fee ÷ Final Incurred Cost (%) |
|---|---|---|---|---|---|---|---|
| SSBN 622 | May 1977 | $44.5 | $57.7 | $48.0 | $8.7 | 9.6 | 18.1 |
| SSN 661 | Oct. 1977 | 29.7 | 39.2 | 30.2 | 5.9 | 9.8 | 19.5 |
| SSN 663 | Apr. 1978 | 32.9 | 41.0 | 28.6 | 6.1 | 9.8 | 21.3 |
| SSBN 631 | Feb. 1979 | 45.3 | 52.8 | 44.7 | 7.5 | 9.7 | 16.8* |
| SSN 668 | July 1979 | 33.1 | 39.5 | 34.7 | 5.1 | 9.8 | 14.7* |
| SSN 670 | Dec. 1979 | 34.0 | 40.4 | 35.5 | 5.4 | 9.8 | 15.2* |

* Newport News also received payments on these overhauls for Cost of Facilities Capital. If these payments are considered an additional return to the contractor, the above figures would increase to 18.6% (SSBN 631), 17.0% (SSN 668), and 18.0% (SSN 670).

Enclosure (1)

### PROFIT EARNED BY NEWPORT NEWS ON SSN 688 CLASS SUBMARINE POST-SHAKEDOWN AVAILABILITIES (PSA's)
(Thousands of Dollars)

| Submarine | Fixed Price | Costs Incurred | Profit | Profit as % of Cost |
|---|---|---|---|---|
| 688 | $ 6,072 | $ 5,318 | $ 755 | 14.2 |
| 689 | 6,387 | 5,814 | 573 | 9.9 |
| 690 | 6,726 | 5,162 | 1,564 | 30.3 |
| 691 | 7,210 | 5,287 | 1,922 | 36.4 |
| 693 | 5,126 | 4,199 | 927 | 22.1 |
| 694 | 5,523 | 4,330 | 1,194 | 27.6 |
| 695 | 5,508 | 5,045 | 462 | 9.2 |
| Total | $ 42,552 | $ 35,155 | $7,397 | 21.0 |

Note: Numbers may not check due to rounding

## L. CONSULTANTS

### RECOMMENDATIONS TO CONTROL CONSULTANT ABUSES

1. Congressional committees, the General Accounting Office, and others have recently been looking into Government agencies reliance on consultants. Since many consulting contracts are recorded as something else, such as "management support" contracts, no one seems to know the full extent of the problem. However, recent studies have found widespread waste and abuse in the Government's procurement of consulting services.

2. According to Government figures for 1978, contracts for consulting services from private firms involve almost 70 times the expense, on the average, of obtaining such services from individual consultants under excepted appointments. Moreover, by procuring consulting services from private firms, Government agencies can circumvent the Office of Personnel Management personnel ceilings and rules pertaining to individual consultants such as the rules that establish pay limitations and mandatory recoupment of pay from retired Government employees.

3. One solution to the problem is to make it more difficult for Government agencies to contract for consulting services. OMB issued revised rules in 1980 but these rules do not apply to all consulting contracts and are not strict enough to be effective. Also, OMB Policy Circular, A-76, on contracting out for commercial or industrial products and services, leaves broad discretion to the agencies in contracting for management support and other consulting services not strictly "advisory in nature". Recently

OMB has emphasized the benefits of relying on the private sector and instructed agencies to ensure the "contracting out" policy circular is fully implemented. Some agencies may interpret OMB's instruction as a license to hire more consultants.

4. In my opinion, there should be far greater disclosure and certification of financial and employment information from consulting firms, and regular contract audits. In this regard, I recommend that OMB:

a. Require that any consulting contract in excess of $50,000 be approved, at a minimum, at the Assistant Secretary level. Require that each approving official in the chain of command certify he is personally aware of the work to be done; that it must be done; that it cannot be practically performed in-house; and that the rates are reasonable.

b. Establish a standard set of terms and conditions, offeror certifications, and disclosures, for all consulting contracts, including:

- standards for cost charging to consultant contracts
- a requirement that contractors certify that the rates charged the Government are no higher than those charged the contractor's most favored customer
- a requirement that contractors disclose: names and past affiliations of any former Government employees to be used

on the project; names of Government employees with whom the contractor has had prior association who are either involved in the procurement, or could exercise authority over those who are, and a description of the past association; and, for "unsolicited" proposals, the names of any Government officials who suggested that the proposal be submitted.

c. Limit the rate of pay of any direct charging employee of the contractor or of his subcontractors to no more than the rate of Government Executive Level II employees.

d. Establish and require use of GSA schedule contracts for all cost type consulting contracts. In this way the Government can pre-negotiate and audit labor and overhead rates.

e. Require that all work products delivered by a consulting firm bear a legend identifying it as contractor-prepared, the contract number, and total cost. Require that a copy of all such work products be maintained for inspection by Government auditors.

f. Require that funds for consulting contracts be identified separately in the agency's budget. This should facilitate OMB's overview responsibility and enable tighter control over consulting arrangements.

g. Require agency Inspectors General to perform annual reviews of their agency's use of consulting contracts and compliance with applicable requirements. OMB should review these reports and take corrective action as appropriate.

5. On August 28, 1980 I testified before the House Committee on Post Office and Civil Service, Subcommittee on Human Resources, on the need for legislation to control consultant abuses. Many of my comments are still appropriate. Attached is a copy of my prepared statement.

THIS STATEMENT REFLECTS THE VIEWS OF
THE AUTHOR AND DOES NOT NECESSARILY
REFLECT THE VIEWS OF THE SECRETARY OF
THE NAVY OR THE DEPARTMENT OF THE NAVY

# OPENING REMARKS
# OF
# ADMIRAL H.G. RICKOVER
# BEFORE
# THE HOUSE COMMITTEE ON POST OFFICE AND CIVIL SERVICE
# SUBCOMMITTEE ON HUMAN RESOURCES

AUGUST 28, 1980

## CONSULTANT REFORM ACT OF 1980

THANK YOU FOR INVITING ME TO TESTIFY ON HR 7674, A BILL AIMED AT ELIMINATING ABUSES THAT HAVE BEEN BROUGHT TO LIGHT BY THIS COMMITTEE, THE GENERAL ACCOUNTING OFFICE, AND OTHERS, REGARDING THE GOVERNMENT'S USE OF CONSULTANTS. AMONG THESE ABUSES ARE:

A. CONTRACTING FOR USELESS OR UNNECESSARY WORK.

B. SHOWING FAVORITISM IN THE AWARD OF CONTRACTS -- PARTICULARLY IN CONTRACTS TO FORMER GOVERNMENT EMPLOYEES.

C. USING CONSULTANTS TO PERFORM AGENCY FUNCTIONS OR TO CIRCUMVENT AGENCY PERSONNEL CEILINGS.

D. COMMISSIONING STUDIES TO BUY TIME WHILE CREATING AN IMPRESSION OF ACTION.

E. PAYING EXCESSIVE RATES FOR CONSULTANTS.

THESE PROBLEMS ARE NOT NEW. I OBSERVED MANY OF THEM BEFORE WORLD WAR II WHEN I FIRST CAME TO WASHINGTON TO RUN THE BUREAU OF SHIPS ELECTRICAL SECTION. EVEN IN THOSE DAYS THERE WERE SELF-PROCLAIMED EXPERTS WITH IMPRESSIVE CREDENTIALS WHO COULD BE HIRED TO PERFORM STUDIES AND GIVE ADVICE. AFTER A FEW ENCOUNTERS WITH THESE SO-CALLED "EXPERTS", I DECIDED I WOULD BE MUCH BETTER OFF TAKING ADVANTAGE OF AND, WHERE NECESSARY, DEVELOPING IN-HOUSE GOVERNMENT EXPERTISE TO PROVIDE THE SUPERVISION AND TECHNICAL DIRECTION FOR MY PROGRAMS.

I NOW LIMIT CONTRACTS UNDER MY COGNIZANCE TO BONA FIDE EQUIPMENT MANUFACTURERS AND SHIPBUILDERS, FOR RESEARCH AND DEVELOPMENT, DESIGN, PRODUCTION, AND MAINTENANCE WORK. MY PROGRAMS DEPEND HEAVILY ON INPUT FROM SUCH MANUFACTURERS. I DO NOT USE THE SERVICES OF THE SO-CALLED "THINK TANKS" OR CONSULTING FIRMS.

I AM NOT SAYING THAT ALL CONSULTING FIRMS ARE INCOMPETENT, OR THAT ALL CONSULTING CONTRACTS ARE UNNECESSARY OR WASTEFUL. ONCE IN A GREAT WHILE, A SHORT TERM NEED FOR SPECIALIZED KNOWLEDGE AND EXPERTISE MIGHT BE BEST FILLED BY A CONSULTANT. I CAN CONCEIVE THAT CONSULTING FIRMS MAY BE USEFUL TO HELP WITH THE WORK OF SOME CIVILIAN AGENCIES, FOR EXAMPLE, IN GATHERING DATA OR CONDUCTING STATISTICAL SURVEYS.

IN THE DEFENSE DEPARTMENT, HOWEVER, THERE HAS BEEN A RAPID GROWTH IN THE USE OF CONSULTANTS AS A RESULT OF INCREASED WORKLOADS, PERSONNEL HIRING RESTRICTIONS, AND EASY ACCESS TO CONSULTING SERVICES. IN MY OPINION, VAST SUMS ARE BEING WASTED THROUGH THESE CONSULTING CONTRACTS, MANY OF WHICH GO TO FRIENDS OR FORMER CO-WORKERS OF DEFENSE DEPARTMENT EMPLOYEES. IN TERMS OF DELAY AND INEFFICIENCY, THE TRUE

COST TO THE GOVERNMENT OF USELESS STUDIES AND EXCESSIVE USE OF CONSULTANTS FAR EXCEEDS THE PRICE OF THESE CONTRACTS.

THE USE OF CONSULTANTS OFTEN IMPEDES, RATHER THAN FACILITATES, ACTION BY GOVERNMENT AGENCIES. FOR THE PAST TWO DECADES CONSULTANTS AND SYSTEMS ANALYSTS HAVE ENDLESSLY STUDIED AND DEBATED THE RELATIVE MERITS OF NUCLEAR AND NON-NUCLEAR SHIPS, AND THE PROPER COMPOSITION OF OUR FUTURE NAVY. CONTRACTS FOR STUDIES FREQUENTLY WASTE THE TIME OF AGENCY PERSONNEL WHO OFTEN MUST EDUCATE THE SO-CALLED EXPERTS DOING THE STUDY, ASSIST THEM IN GATHERING THE DATA, AND THEN RESPOND TO THEIR REPORTS AND RECOMMENDATIONS - WHICH OFTEN DEFY COMMON SENSE.

STUDIES HAVE BEEN CONDUCTED IN ATTEMPTS TO PROVE THAT NON-NUCLEAR AIRCRAFT CARRIERS AND CRUISERS ARE AS EFFECTIVE AS, BUT CHEAPER THAN, NUCLEAR POWERED CARRIERS AND CRUISERS; THAT, IN RESPONSE TO THE SOVIET UNION BUILDING FASTER SUBMARINES, WE SHOULD BUILD SLOWER SUBMARINES; THAT WE SHOULD ONCE MORE CONSIDER BUILDING DIESEL POWERED SUBMARINES; AND SO ON.

EACH YEAR THERE IS CONTROVERSY IN THE DEPARTMENT OVER THE SHAPE OF THE NAVY'S FUTURE SHIPBUILDING PROGRAMS. OFTEN THE CONCESSION TO THOSE WHOSE PROGRAMS ARE CUT BACK IS A PROMISE TO CONDUCT "FURTHER STUDIES." AS A CONSEQUENCE, THE NAVY'S LONG RANGE SHIPBUILDING PROGRAM HAS FOR YEARS BEEN IN TURMOIL.

ANOTHER PROBLEM WHICH RESULTS FROM EXCESSIVE USE OF CONSULTANTS IS THAT THE SKILLS AND MOTIVATION OF GOVERNMENT PERSONNEL TEND TO ATROPHY. WHERE CONSULTANTS PREPARE THE GOVERNMENT'S LONG RANGE

PLANS AND BUDGETS, DRAFT CONTRACTS, PREPARE RESPONSES TO CONGRESS, AND THE LIKE, THE GOVERNMENT PEOPLE BECOME MERE FIGUREHEADS, AVOIDING THE HARD THINKING AND THE "DIRTY DETAILS." GOVERNMENT PROJECT OFFICERS AND CONTRACTING OFFICERS WHO RELY ON CONSULTANTS TO DRAFT THEIR CONTRACTS ARE OFTEN POORLY EQUIPPED TO NEGOTIATE AND ADMINISTER THEM. IN A RECENT CASE, AN ASSISTANT SECRETARY OF THE NAVY HIRED CONSULTANTS TO PREPARE A REPORT OF THE NAVY'S SHIP PROCUREMENT PROCESS. THE NAVY COMMAND RESPONSIBLE FOR SHIP PROCUREMENT THEN HIRED CONSULTANTS, INCLUDING A FIRM INVOLVED IN WRITING THE REPORT, TO DRAFT THE NAVY'S RESPONSE.

WITH VIRTUALLY UNLIMITED PERSONNEL RESOURCES AVAILABLE FROM CONSULTING FIRMS, GOVERNMENT OFFICES HAVE UNDERTAKEN MARGINAL WORK THEY WOULD OTHERWISE HAVE NOT DONE. ONCE UNDER CONTRACT, AGGRESSIVE CONSULTANTS CAN SOMETIMES TURN THESE MINOR OR UNIMPORTANT JOBS INTO MAJOR PROJECTS RESULTING IN FOLLOW-ON CONTRACTS AND ADDITIONAL PROFITS.

PROBABLY THE BEST WAY TO CUT DOWN ON WASTE IN THE CONSULTING BUSINESS IS TO REDUCE DRASTICALLY THE FUNDS AVAILABLE FOR THIS PURPOSE AND TO MAKE THEM MORE VISIBLE THROUGHOUT THE BUDGET PROCESS. THIS IS PARTICULARLY IMPORTANT IN THE CASE OF LARGE DEFENSE PROGRAMS WHERE THE VAST SUMS BEING GIVEN TO CONSULTANTS ARE HIDDEN IN THE TOTAL PROGRAM COST.

IN ADDITION, CONGRESS SHOULD MAKE IT DIFFICULT FOR GOVERNMENT AGENCIES TO CONTRACT WITH CONSULTANTS. AGENCIES TEND TO USE CONSULTANTS EXCESSIVELY MAINLY BECAUSE FUNDS FOR THIS PURPOSE ARE READILY AVAILABLE TO LARGE NUMBERS OF GOVERNMENT EMPLOYEES, AND

CONSULTING CONTRACTS ARE EASY TO AWARD. FOR THESE REASONS, APPROVAL LEVELS FOR SUCH CONTRACTS SHOULD BE SET HIGH IN THE CHAIN OF COMMAND, PREFERABLY AT THE SECRETARIAL LEVEL, TO REDUCE THE LIKELIHOOD OF "MAKE-WORK" PROJECTS AND FAVORITISM.

EXISTING FEDERAL STATUTES AND DEFENSE PROCUREMENT REGULATIONS APPEAR TO SET STRICT LIMITS ON THE HIRING AND PAY OF CONSULTANTS. THERE ARE PROHIBITIONS AGAINST USING CONSULTANTS TO PERFORM DUTIES WHICH COULD BE PERFORMED BY REGULAR EMPLOYEES; TO AVOID PERSONNEL HIRING REQUIREMENTS; OR TO CIRCUMVENT CIVIL SERVICE PROCEDURES AND PAY LIMITATIONS.

BUT THESE RESTRICTIONS ARE EASILY CIRCUMVENTED. DEFENSE PROCUREMENT REGULATIONS, FOR EXAMPLE, POINT OUT THAT BY STATUTE THE MAXIMUM RATE OF PAY FOR INDIVIDUAL CONSULTANTS OR EXPERTS CANNOT EXCEED THE TOP RATE OF THE CIVIL SERVICE PAY SCALE. BUT THESE LIMITS DO NOT APPLY IN CASES WHERE THE GOVERNMENT CONTRACTS WITH A COMPANY FOR SPECIFIC TASKS. AS A RESULT, FORMER GOVERNMENT EMPLOYEES AND OTHERS WHO WANT TO BE PAID MORE THAN THE LAW PRESCRIBES FOR INDIVIDUAL CONSULTANT AGREEMENTS, JOIN CONSULTING FIRMS.

IN RECENT MONTHS, THE PRESIDENT, THROUGH THE OFFICE OF MANAGEMENT AND BUDGET, HAS DIRECTED GOVERNMENT AGENCIES TO TIGHTEN THEIR CONTROLS OVER CONSULTING CONTRACT PROCEDURES. HOPEFULLY THIS WILL RESULT IN IMPROVEMENT. HOWEVER, HISTORY HAS SHOWN THE NEED FOR MORE PERMANENT SAFEGUARDS. THE BILL YOU ARE CONSIDERING TODAY, HR 7674, IS A STEP IN THE RIGHT DIRECTION. HOWEVER, TO BE EFFECTIVE IT SHOULD BE STRENGTHENED SUBSTANTIALLY.

I HAVE THE FOLLOWING COMMENTS AND RECOMMENDATIONS:

1. THE BILL'S PROVISIONS SHOULD BE DIRECTED SPECIFICALLY AT CONSULTING CONTRACTS, AS THE TITLE "CONSULTANT REFORM ACT OF 1980" SUGGESTS, RATHER THAN ALL CONTRACTS. THE PROBLEMS WHICH NEED TO BE ADDRESSED ARISE PRIMARILY WITH THE AWARD OF CONSULTING CONTRACTS TO PERFORM STUDIES, PROVIDE ADVICE, OR PERFORM PAPERWORK JOBS AND ADMINISTRATIVE SERVICES FOR THE GOVERNMENT AGENCIES. APPLYING THE PROVISIONS OF HR 7674 TO CONTRACTS SUCH AS THOSE FOR RESEARCH AND DEVELOPMENT; DESIGN, PRODUCTION, MAINTENANCE, OR OPERATION OF HARDWARE; HOUSEKEEPING SERVICES; SUPPLY CONTRACTS AND THE LIKE, WILL CAUSE UNNECESSARY PAPERWORK, DELAY DAY-TO-DAY WORK, AND MASK THE CONSULTING ABUSES WHICH SHOULD BE THE FOCUS OF THE BILL.

2. I AGREE WITH THE REQUIREMENT TO PUBLICIZE PROPOSED CONSULTING CONTRACTS IN EXCESS OF $10,000 IN THE COMMERCE BUSINESS DAILY. THIS WILL CLOSE A LOOPHOLE IN EXISTING REGULATIONS WHICH COULD BE INTERPRETED AS EXEMPTING CONSULTING CONTRACTS FROM THE REQUIREMENTS TO PUBLICIZE. BUT THIS REQUIREMENT WILL NOT DO MUCH TO PREVENT ABUSES. FEW WILL BE ABLE TO DISCERN FROM SKILLFULLY WORDED PUBLIC ANNOUNCEMENTS WHETHER CONTRACTS ARE REALLY NECESSARY, OR WHETHER THEY STEM FROM SPECIAL RELATIONSHIPS BETWEEN CONSULTANTS AND THEIR GENEROUS CLIENTS. IT IS ALL TOO EASY FOR THOSE CHARGED WITH SPENDING MONEY THAT IS NOT THEIR OWN TO BE GENEROUS.

IF THE PURPOSE OF SUCH A REPORTING REQUIREMENT IS TO ENHANCE COMPETITION FOR CONSULTING CONTRACTS, CONGRESS SHOULD BEAR IN MIND THAT MANY CONSULTING CONTRACTS ARE AWARDED ON A COST REIMBURSEMENT BASIS WITH LITTLE OR NO OBJECTIVE CRITERIA FOR JUDGING CONTRACTOR PERFORMANCE EITHER BEFORE OR AFTER THE FACT. IN THESE CASES, THE

TRADITIONAL BENEFITS OF COMPETITIVE BIDDING ARE LARGELY LOST.

3. HR 7674 PROPOSES TO BROADEN PUBLIC ACCESS TO GOVERNMENT CONTRACT FILES AND AMEND THE FREEDOM OF INFORMATION ACT TO PROVIDE ACCESS TO CONTRACTOR DATA DEVELOPED UNDER GOVERNMENT CONTRACTS. I CONSIDER THAT PUBLIC ACCESS TO CONTRACT DATA ALREADY ALLOWED UNDER THE FREEDOM OF INFORMATION ACT SHOULD NOT BE BROADENED. THE DISADVANTAGES WOULD FAR OUTWEIGH THE ADVANTAGES. NOT MANY CITIZENS WILL BE WILLING OR ABLE TO FERRET OUT CONSULTING CONTRACT ABUSES BY GOING THROUGH GOVERNMENT OR CONTRACTOR FILES. THOSE WHO WOULD BENEFIT MOST FROM THE PROPOSED PROVISION ARE CLAIMS LAWYERS AND OTHERS WHO ALREADY HAVE SEIZED UPON THE FREEDOM OF INFORMATION ACT AS A VEHICLE WITH WHICH TO HARASS THE GOVERNMENT. UNDER THIS ACT, THEY ALREADY OBTAIN INFORMATION THEY COULD NOT OTHERWISE OBTAIN ABOUT THEIR COMPETITORS, AS WELL AS DATA WITH WHICH TO DEVISE A BASIS FOR BID PROTESTS OR LAWSUITS AGAINST THE GOVERNMENT. FURTHER, MAKING ALL DATA GENERATED UNDER GOVERNMENT CONTRACTS SUBJECT TO THE FREEDOM OF INFORMATION ACT WOULD PLACE SOME CONTRACTORS IN THE POSITIO OF HAVING TO DECIDE WHETHER TO FOREGO GOVERNMENT CONTRACTS OR RISK THE DISCLOSURE OF PROPRIETARY DATA TO COMPETITORS.

4. THE PROVISION THAT WOULD LIMIT PROCUREMENT OBLIGATIONS IN THE LAST TWO MONTHS OF A YEAR TO 20 PERCENT SHOULD APPLY ONLY TO CONSULTING CONTRACTS. IF THIS PROVISION IS APPLIED ACROSS THE BOARD TO ALL PROCUREMENTS, DATA ON LAST MINUTE CONTRACTING FOR CONSULTANTS WOULD BE LOST IN SUMS TOTALING MANY MILLIONS OF DOLLARS FOR OTHER DELAYED PROCUREMENTS.

5. THE REQUIREMENT FOR FORMAL EVALUATION OF CONTRACTOR PERFORMANCE,

AND FOR LISTING DETAILED INFORMATION ON REPORTS GENERATED UNDER CONTRACTS SHOULD APPLY ONLY TO CONTRACTS WITH CONSULTANTS. APPLYING THESE REQUIREMENTS TO ALL CONTRACTS WOULD GENERATE UNNECESSARY PAPERWORK. THE LIST OF REQUIRED REPORTS FOR THE TRIDENT SHIP CONSTRUCTION CONTRACT, FOR EXAMPLE, IS MORE THAN 90 PAGES LONG AND INCLUDES REPORTS FOR SUCH ITEMS AS CONSTRUCTION STATUS, COST, SCHEDULES, WEIGHT, DESIGN SUBMITTALS AND THE LIKE. I SEE NO BENEFIT IN APPLYING THE PROPOSED REQUIREMENTS FOR CONSULTANTS TO OTHER CONTRACTS.

6. THE REQUIREMENT THAT AGENCIES IDENTIFY AND JUSTIFY AMOUNTS IN THEIR BUDGETS FOR CONSULTING CONTRACTS IS A GOOD ONE. I WOULD GO A STEP FURTHER AND REQUIRE THAT SUCH SUMS SHOULD BE REQUESTED BY AGENCIES AND AUTHORIZED BY CONGRESS AS A SPECIFIC LINE ITEM IN THE AGENCY BUDGET.

7. I AGREE WITH THE PROPOSED REQUIREMENT REQUIRING DISCLOSURE OF CONFLICT OF INTEREST SITUATIONS; ALSO SANCTIONS IN CASES WHERE CONTRACTORS DO NOT MAKE TRUTHFUL DISCLOSURES. IN ADDITION, I RECOMMEND THAT ANY COMPANY THAT DOES CONSULTING WORK OR EMPLOYS A SUBCONTRACTOR TO DO CONSULTING WORK SHOULD BE REQUIRED TO DISCLOSE THE NAMES AND PAST AFFILIATIONS OF ANY FORMER GOVERNMENT EMPLOYEES WHO WILL BE USED ON A PROJECT; THE PROPOSED RATE OF PAY FOR HIS SERVICE; AND IN THE CASE OF "UNSOLICITED" PROPOSALS, WHETHER ANY GOVERNMENT OFFICIALS SUGGESTED DIRECTLY OR INDIRECTLY THE SUBMISSION OF THAT PROPOSAL.

8. THE BILL SHOULD REQUIRE THAT ANY CONSULTING CONTRACT IN EXCESS OF $50,000 BE APPROVED, AT A MINIMUM, AT THE ASSISTANT

SECRETARY LEVEL. EACH APPROVING OFFICIAL IN THE CHAIN SHOULD ALSO BE REQUIRED TO CERTIFY THAT HE IS PERSONALLY KNOWLEDGEABLE OF THE WORK TO BE DONE; THAT THE WORK NEEDS TO BE DONE; AND THAT IT CANNOT BE PERFORMED IN-HOUSE.

9. THE BILL SHOULD REQUIRE THE GOVERNMENT OFFICIAL WHO INITIATES A REQUEST FOR A CONSULTING CONTRACT TO INCLUDE A COPY OF HIS OWN JOB DESCRIPTION IN THE FORMAL REQUEST FOR APPROVAL TO CONTRACT. IN THIS WAY, APPROVING OFFICIALS CAN DETERMINE WHETHER THE CONTRACT WOULD BE FOR WORK WHICH THE GOVERNMENT OFFICIAL IS EITHER CAPABLE OF PERFORMING OR IS PAID TO PERFORM.

10. EITHER THE GENERAL SERVICES ADMINISTRATION OR THE OFFICE OF MANAGEMENT AND BUDGET SHOULD BE REQUIRED BY LAW TO ESTABLISH A STANDARD SET OF OFFEROR CERTIFICATIONS AND TERMS AND CONDITIONS. THESE WOULD BE REQUIRED FOR ALL CONSULTING CONTRACTS. AT A MINIMUM THESE SHOULD INCLUDE:

(A) STANDARDS FOR COST CHARGING TO CONSULTANT CONTRACTS.

(B) REQUIREMENTS FOR CONSULTANTS TO CERTIFY THAT THE RATES CHARGED TO THE GOVERNMENT ARE NO HIGHER THAN THOSE CHARGED TO THE CONTRACTOR'S MOST FAVORED COMMERCIAL CUSTOMER.

(C) A PROHIBITION AGAINST GOVERNMENT AGENCIES PAYING CONSULTANTS AT A RATE HIGHER THAN THE TOP OF THE CIVIL SERVICE PAY SCALE, EXCEPT WITH THE PRIOR WRITTEN APPROVAL OF THE HEAD OF THE AGENCY.

11. REQUIRE THE INSPECTOR GENERAL OF EACH AGENCY TO REVIEW ANNUALLY THE AGENCY'S USE OF CONSULTING CONTRACTS AND COMPLIANCE WITH APPLICABLE REQUIREMENTS. THE RESULTS SHOULD BE SUBMITTED

TO THE OFFICE OF MANAGEMENT AND BUDGET AND TO THE APPROPRIATE CONGRESSIONAL OVERSIGHT COMMITTEE.

I BELIEVE HR 7674, MODIFIED AS I HAVE RECOMMENDED, WILL GO A LONG WAY TOWARD DISCOURAGING MANY OF THE ABUSES WHICH HAVE COME TO LIGHT.

HOWEVER, I MUST NOT CONVEY THE IMPRESSION THAT BY ENACTMENT OF YOUR LEGISLATION, THE PROBLEMS WILL GO AWAY. THOSE IN THE CONSULTING BUSINESS ARE SHREWD AND HAVE FRIENDS IN GOVERNMENT. THESE GOVERNMENT EMPLOYEES THEMSELVES OFTEN LOOK FORWARD TO ACQUIRING THE FRUITS OF THE CONSULTING CORNUCOPIA WITH THE ASSISTANCE OF THEIR FRIENDS ALREADY IN THE RACKET.

CONSULTING TO GOVERNMENT TODAY IS AN ENDEAVOR REQUIRING LITTLE RESPONSIBILITY, WHILE ASSURING FINANCIAL SUCCESS. YOUR LEGISLATION MAY HINDER THE PROCESS FOR A WHILE, BUT I DOUBT THE ABUSES WILL BE ELIMINATED. AT ANY MOMENT DURING A 24-HOUR DAY, ONLY ONE-THIRD OF THE PEOPLE IN THE WORLD ARE ASLEEP; THE OTHER TWO-THIRDS ARE AWAKE AND CREATING PROBLEMS. CONSULTANTS ARE WIDE-AWAKE, CLEVER PEOPLE WHO CAN FERRET OUT WHERE THE MANNA IS, AS THEY HAVE AMPLY PROVED.

## M. OFFICE OF FEDERAL PROCUREMENT POLICY

1. In almost seven years of existence the Office of Federal Procurement Policy (OFPP) has accomplished very little in terms of improving efficiency and economy in Government procurement. In fact, as an additional layer in the procurement bureaucracy, OFPP actually impedes Government efficiency.

2. OFPP has a relatively small staff and budget. But OFPP actions require a great deal of effort on the part of numerous people from the various Government departments and agencies. They must devote time away from their primary jobs to serve on OFPP committees, and coordinate the review and implementation of OFPP policy directives within their organizations.

3. OFPP seeks input from special interests outside Government whose primary motives are not necessarily improvement of the procurement process. There is therefore a tendency for OFPP to seek a middle ground between competing interests rather than doing what is best for the U.S. Government.

4. A good example is the case of the regulations OFPP issued to implement the Contract Disputes Act of 1978. Various drafts of the regulations were issued for comment over a 16 month period. The early drafts contained provisions favored by claims lawyers of the American Bar Association including concepts specifically rejected by Congress in passing the Disputes Act. Much time and effort was required on the part of the Defense Department and others to review the various drafts promulgated by OFPP. The final regulations promulgated by OFPP contain provisions which are favorable to contractors in claims against the Government.

5. OFPP's current effort to promulgate a Federal Acquisition Regulation (FAR) to replace the existing Defense Acquisition and Federal Procurement Regulations has consumed a great deal of effort on the part of those who must review each draft segment of the FAR. I doubt the expense and inefficiency involved is warranted. The existing regulations have been extensively revised by the cognizant agencies in recent years and OFPP has proposed few substantive changes in the first draft of the FAR. If subsequent drafts of the FAR incorporate comments received from special interest groups much time and effort will be required of Government department and agency officials to assure that Government interests are upheld.

6. One way you can demonstrate your concern with improving Government efficiency and reducing unwarranted Government expense would be to cut part of your own budget by proposing that Congress disestablish OFPP. Without the additional layer in the procurement bureaucracy Federal agencies would be in a better position to concentrate on their missions and improve the Government's productivity.